

**FIGURE 1A**

SEQ ID NO:2	MAEAGGAS -EQDDVSIILRTEDMVMCMSCATG-----ERVCLAAGLGNRHCFLENIAAD-KNIPPDLSQCQVFVIEQALSVRALQELV
SEQ ID NO:128	MAEAGGAS -EQDDVSFLRTEDMVCCLSCATG-----ERVCLAAGFGNRHCFLENIAAD-KNIPPDLSQCQVFVIEQALSVRALQELV
SEQ ID NO:130	MAEAGGAS -EQDDVSFLRTEDMVCCLSCATG-----ERVCLAAGFGNRHCFLENIAAD-KNIPPDLSQCQVFVIEQALSVRALQELV
SEQ ID NO:144	MAEAGGAS -EQDDVSFLRTEDMVCCLSCATG-----ERVCLAAGFGNRHCFLENIAAD-KNIPPDLSQCQVFVIEQALSVRALQELV
SEQ ID NO:146	MAEAGGAS -EQDDVSFLRTEDMVCCLSCATG-----ERVCLAAGFGNRHCFLENIAAD-KNIPPDLSQCQVFVIEQALSVRALQELV
SEQ ID NO:4	MADSEGSS--EQDDVSFLRTEDMVCCLSCATG-----ERVCLAAGFGNRHCFLENIAAD-KNIPPDLSQCQVFVIEQALSVRALQELV
SEQ ID NO:6	MADSEGSS--EQDDVSFLRTEDMVCCLSCATG-----ERVCLAAGFGNRHCFLENIAAD-KNIPPDLSQCQVFVIEQALSVRALQELV
SEQ ID NO:8	MADSEGSS--EQDDVSFLRTEDMVCCLSCATG-----ERVCLAAGFGNRHCFLENIAAD-KNIPPDLSQCQVFVIEQALSVRALQELV
SEQ ID NO:10	MAEAGGS--EQDDVSFLRTEDMVCCLSCATG-----ERVCLAAGFGNRHCFLENIAAD-KNIPPDLSQCQVFVIEQALSVRALQELV
SEQ ID NO:56	MAEAGGS--EQDDVSFLRTEDMVCCLSCATG-----ERVCLAAGFGNRHCFLENIAAD-KNIPPDLSQCQVFVIEQALSVRALQELV
SEQ ID NO:57	-----DMVCLSCATG-----ERVCLAAGFGNRHCFLENIAAD-KNIPPDLSQCQVFVIEQALSVRALQELV
SEQ ID NO:58	MADKEEQGGGEQDDVSFLRTGDIVCLSCVASHNRDGVLSERVCLCTEGFGNRMCTLENVSD-KDIPPDIAMCMCLYIDNALSMLRALQEMM
SEQ ID NO:59	-MASQDAE----DEVSFLRTGDQNLVCSS--QS----LGHVLLGAEGFGNRCNVCLEASN-QNVPPDLSICVFVLEQALSVRALQEMV
SEQ ID NO:60	MADAGEGE----DEIQFLRTDDEVVLQCTATIHKE----QQKLCIAAEGFGNRLCFLESTSNKSNVPPDLSICTFVLEQALSVRALQEML
SEQ ID NO:61	MADGGEGE----DEIQFLRTDDEVVLQCTATIHKE----QQKLCIAAEGFGNRLCFLESTSNKSNVPPDLSICTFVLEQALSVRALQEML
SEQ ID NO:62	MADGGEGE----DEIQFLRTDDEVVLQCTATIHKE----QQKLCIAAEGFGNRLCFLESTSNKSNVPPDLSICTFVLEQALSVRALQEML

SEQ ID NO:2	TAAGSETGKE-----NLGKGTGSGYRTLLYGNAILLRHNSDMYLAACLSTS--SSQDKLAFDVGLQOHSQGEACWWTILHPASKQRSEG
SEQ ID NO:128	TAAGSETG-----KGTGSGHRTLLYGNAILLRHNSDMYLAACLSTS--SSQDKLAFDVGLQOHSQGEACWWTILHPASKQRSEG
SEQ ID NO:130	TAAGSETG-----KGTGSGHRTLLYGNAILLRHNSDMYLAACLSTS--SSQDKPAFDVGLQOHSQGEACWWTILHPASKQRSEG
SEQ ID NO:144	TAAGSETGKE-----NLGKGTGSGHRTLLYGNAILLRHNSDMYLAACLSTS--SSQDKLAFDVGLQOHSQGEACWWTILHPASKQRSEG
SEQ ID NO:146	TAAGSETGKE-----NLGKGTGSGHRTLLYGNAILLRHNSDMYLAACLSTS--SSQDKLAFDVGLQOHSQGEACWWTILHPASKQRSEG
SEQ ID NO:4	TAASSQEG-----KGGTSGHRTLLYGNAILLRHNSDMYLAACLSTS--SSNDKLSFDVGLQOHSQGEACWWTIVHPASNQRSEG
SEQ ID NO:6	TATSSQEG-----KGGTSGHRTLLYGNAILLRHNSDMYLAACLSTS--SSNDKLSFDVGLQOHSQGEACWWTIVHPASKQRSEG
SEQ ID NO:8	TAAGSEEG-----KG-TGSGHRTLLYGNAILLRHNSDMYLAACLSTS--SSNDKLSFDVGLQOHSQGEACWWTIVHPASKQRSEG
SEQ ID NO:10	TAAGSETG-----KGTGSGHRTLLYGNAILLRHNSDMYLAACLSTS--SSNDKLSFDVGLQOHSQGEACWWTIVHPASKQRSEG
SEQ ID NO:56	TAAGSETG-----KGTGSGHRTLLYGNAILLRHNSDMYLAACLSTS--SSNDKLSFDVGLQOHSQGEACWWTIVHPASKQRSEG
SEQ ID NO:57	TAAGSETG-----KGTGSGHRTLLYGNAILLRHNSDMYLAACLSTS--SSNDKLSFDVGLQOHSQGEACWWTIVHPASKQRSEG
SEQ ID NO:58	SADSDHKS-----ASGAGGHKTLTYGHAVQLKHVQSEMYLAACLSSC--SSNDKLAFDVGLQOHSQGEACWWTIVHPASKQRSEG
SEQ ID NO:59	ITDQIDQGGQ-----AGHRTLLYGHAMLLQHSLSMHLACLPTS--SSKDKLAFDVGLQOHSQGEACWWTIVHPASKQRSEG
SEQ ID NO:60	ANTVEKSEGQVDVEKWKFMKMTAQGGGHRRTLLYGHAILLRHSYSGMYLCCCLSTSRSSTDKLAFDVGLQOHSQGEACWWTIVHPASKQRSEG
SEQ ID NO:61	ANTVEKSEGQVDVEKWKFMKMTAQGGGHRRTLLYGHAILLRHSYSGMYLCCCLSTSRSSTDKLAFDVGLQOHSQGEACWWTIVHPASKQRSEG
SEQ ID NO:62	ANTVEKSEGQVDVEKWKFMKMTAQGGGHRRTLLYGHAILLRHSYSGMYLCCCLSTSRSSTDKLAFDVGLQOHSQGEACWWTIVHPASKQRSEG

**FIGURE 1B**

SEQ ID NO: 2	EKVRVGDDLLILSVVAIERYLHTTKE--NEVSIVNASFHVTHWSVQPYGTG-----ISRMKYVGVYVFGGDVLRFFHHG-GDECLTI
SEQ ID NO: 128	EKVRVGDDLLILSVVATERYLHTTKE--NEVSIVNASFHVTHWSVQPYGTG-----ISRMKYVGVYVFGGDVLRFFHHG-GDECLTI
SEQ ID NO: 130	EKVRVGDDLLILSVVATERYLHTTKE--NEVSIVNASFHVTHWSVQPYGTG-----ISRMKYVGVYVFGGDVLRFFHHG-GDECLTI
SEQ ID NO: 144	EKVRVGDDLLILSVVATERYLHTTKE--NEVSIVNASFHVTHWSVQPYGTG-----ISRMKYVGVYVFGGDVLRFFHHG-GDECLTI
SEQ ID NO: 146	EKVRVGDDLLILSVVATERYLHTTKE--NEVSIVNASFHVTHWSVQPYGTG-----ISRMKYVGVYVFGGDVLRFFHHG-GDECLTI
SEQ ID NO: 4	EKVPVGDDLLILSVVATERYLHTAKE--NELSVNASFHVTHWSVQPYGTG-----ISRMKYVGVYVFGGDVLRFFHHG-GDECLTI
SEQ ID NO: 6	EKVRVGDDLLILSVVATERYLHTAKE--NELSVNASFHVTHWSVQPYGTG-----ISRMKYVGVYVFGGDVLRFFHHG-GDECLTI
SEQ ID NO: 8	EKVRVGDDLLILSVVATERYLHTTKE--NDLSIVNASFHVTHWSVQPYGTG-----ISRMKYVGVYVFGGDVLRFFHHG-GDECLTI
SEQ ID NO: 10	EKVRVGDDLLIPSVVATERYLHTTKE--NEQSIIVNASFHVTHWSVQPYGTG-----ISRMKYVGVYVFGGDVLRFFHHG-GDECLTI
SEQ ID NO: 56	EKVRVGDDLLILSVVATERYLHTTKE--NEQSIIVNASFHVTHWSVQPYGTG-----ISRMKYVGVYVFGGDVLRFFHHG-GDECLTI
SEQ ID NO: 57	EKVRVGDDLLILSVVATERYLHTTKE--NDLSIVNASFHVTHWSVQPYGTG-----ISRMKYVGVYVFGGDVLRFFHHG-GDECLTI
SEQ ID NO: 58	EKVRVGDDVILSVVATERYLHMAYS---KGYMVTASFHQTLWNIQSVSSG-----SMRTNMGFLFGNDVLRFFHHG-NDECLTI
SEQ ID NO: 59	EKVRVGDDLLILVNATERYLHLSVERDDQPMIVVASFQQTLTWTVAPVSSGIVKIKAMAKKYGDTEKVLGFLNGLDTRLRFSRGHMDLYLTV
SEQ ID NO: 60	EKVRVGDDLLILSVSSERYLHLSYG--NSSHVDAAFOQTLSVAPISS-----GSEAAQGYLIGGDVLRLLHGHMDECLTV
SEQ ID NO: 61	EKVRVGDDLLILSVSSERYLHLSYG--NGSLHVDAAFOQTLSVAPISS-----GSEAAQGYLIGGDVLRLLHGHMDECLTV
SEQ ID NO: 62	EKVRVGDDLLILSVSSERYLHLSYG--NGSLHVDAAFOQTLSVAPISS-----GSEAAQGYLIGGDVLRLLHGHMDECLTV
SEQ ID NO: 2	P-STWTKDGGQNIIVYKGGSVMSQARSMLRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVNDQNELYLVSRREEPTTASCAFLRQEKD
SEQ ID NO: 128	P-STWTKDGGQNIIVYEGGGSVMSQARSMLRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVNDQNELYLVSRREEATTASCAFLRQEKD
SEQ ID NO: 130	P-STWTKDGGQNIIVYEGGGSVMSQARSMLRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVNDQNELYLVSRREEATTASCAFLRQEKD
SEQ ID NO: 144	P-STWTKDGGQNIIVYEGGGSVMSQARSMLRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVNDQNELYLVSRREEATTASCAFLRQEKD
SEQ ID NO: 146	P-STWTKDGGQNIIVYEGGGSVMSQARSMLRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVNDQNELYLVSRREEATTASCAFLRQEKD
SEQ ID NO: 4	P-SSWSNVSGQNIIVYEGGGSVMSQARSMLRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVNNELHLVCREEATTASSTFFLRQEKD
SEQ ID NO: 6	P-STWSNVSGQNIIVYEGGGSVMSQARSMLRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVNNELHLVCREEATTASSTFFLRQEKD
SEQ ID NO: 8	P-STWSEAPGQNIIVYEGGGSVMSQARSMLRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVNNELHLVCREEATTASSTFFLRQEKD
SEQ ID NO: 10	P-STWGREAGQNIIVYEGGGSVMSQARSMLRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVNDNELILVKKEEASIAATTTFFCLRQEKD
SEQ ID NO: 56	P-STWGREAGQNIIVYEGGGSVMSQARSMLRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVNDNELILVKKEEASIAATTTFFCLRQEKD
SEQ ID NO: 57	P-STWSLDSGQNIIVYEGGGSVMSQARSMLRLELARTKWAGGFINWYHPMRIRHITTTGRYLGVNNELILMSRDOATTSQTAFVLRLEKD
SEQ ID NO: 58	P-ENWSEHPQHNMVIEGGAATQARSMLRVELIRMKWHGALVGEVQVFRIRHITTSGRYLVLDN-SVQLYHKEKADFDLTAFCVQCQNKD
SEQ ID NO: 59	PPVGCKODDNISEVSDYTGAVAQARSILWRAELILKKWNGSVSWGPPCRIHRLTSGKYLAVLENGTVCIVPRKSNLDDTIFCFQQSRE
SEQ ID NO: 60	P-SGEHGEQRTVHYEGGAVSVHARSILWRLTETLRVAVSGSHIRWGQPPFRLRHVTTGKYLIMEDKNLLMDKEKADVKSATAFRSSKE
SEQ ID NO: 61	P-SGEHGEQRTVHYEGGAVSVHARSILWRLTETLRVAVSGSHIRWGQPPFRLRHVTTGKYLIMEDKNLLMDKEKADVKSATAFRSSKE
SEQ ID NO: 62	P-SGEHGEQRTVHYEGGAVSVHARSILWRLTETLRVAVSGSHIRWGQPPFRLRHVTTGKYLIMEDKNLLMDKEKADVKSATAFRSSKE

FIGURE 1C

SEQ ID NO: 2	DQKQVLEDKOLEVIGAPIIKYGDSTVIVQHS	TGLWLSYKSYETKKKGVGKVEEKQAAILHEEGKMD	DGLDLSRSQEEEE	SWTARVIRKCSS
SEQ ID NO: 128	DQKQVLEDKOLEVIGAPIIKYGDSTVIVQHS	TGLWLSYKSYETKKKGVGKVEEKQAAILHEEGKMD	DGLDLSRSQEEEE	SRTARVIRKCSS
SEQ ID NO: 130	DQKQVLEDKOLEVIGAPIIKYGDSTVIVQHS	TGLWLSYKSYETKKKGVGKVEEKQAAILHEEGKMD	DGLDLSRSQEEEE	SRTARVIRKCSS
SEQ ID NO: 144	DQKQVLEDKOLEVIGAPIIKYGDSTVIVQHS	TGLWLSYKSYETKKKGVGKVEEKQAAILHEEGKMD	DGLDLSRSQEEEE	SRTARVIRKCSS
SEQ ID NO: 146	DQKQVLEDKOLEVIGAPIIKYGDSTVIVQHS	TGLWLSYKSYETKKKGVGKVEEKQAAILHEEGKMD	DGLDLSRSQEEEE	SRTARVIRKCSS
SEQ ID NO: 4	DQKIILEDKOLEVIGAPIIKYGDSTVIVQHS	DTGLWLTYSYETKKKGVGKVEEKQAVLHEEGKMD	DGLDLSRSQEEEE	SRTARVIRKCSS
SEQ ID NO: 6	DQKIILEDKOLEVIGAPIIKYGDSTVIVQHS	DTGLWLTYSYETKKKGVGKVEEKQAVLHEEGKMD	DGLDLSRSQEEEE	SRTARVIRKCSS
SEQ ID NO: 8	DQKVLEDKOLEVIGAPIIKYGDSTVIVQHS	DTGLWLTYSYETKKKGVGKVEEKQAVLHEEGKMD	DGLDLSRSQEEEE	SRTARVIRKCSS
SEQ ID NO: 10	DEKKVLEDKOLEVIGAPIIKYGDSTVIVQHS	DTGLWLTYSYETKKKGVGKVEEKQAAILHEEGKMD	CICLDLSRSQEEEE	SRTARVIRKCSS
SEQ ID NO: 56	DEKKVLEDKOLEVIGAPIIKYGDSTVIVQHS	DTGLWLTYSYETKKKGVGKVEEKQAAILHEEGKMD	CICLDLSRSQEEEE	SRTARVIRKCSS
SEQ ID NO: 57	DQKVLEDKOLEVIGAPIIKYGDSTVIVQHS	DTGLWLTYSYETKKKGVGKVEEKQAAILHEEGKMD	DGLDLSRSQEEEE	SRTARVIRKCSS
SEQ ID NO: 58	PKQMLDEKEEGMGNAIRYGETNAFIQHVKTQ	LWLSYQTTTEVTKKGLGKVEEKKAVALKDGHMDD	CYTFMALEEBESKSARVIRKCSS	
SEQ ID NO: 59	D-LANYDSKQDHGMGSADIKYGDSTVLIQHMKT	GHWSYLAVES - VVGRAAERK - VMMLPEGHMDD	DGLSVVRARABESRSAGIIRKSTL	
SEQ ID NO: 60	K-LDVGVRKEVDGMGTSEIKYGDSTVLIQHVDT	GLWLTYSYQVAVDVKSARMGSIQRK - AIMHHEGHMDD	DGLNLSRSQHEESRTARVIRSTVF	
SEQ ID NO: 61	K-LDGGVRKEVDGMGTSEIKYGDSTVLIQHVDT	GLWLTYSYQVAVDVKSARMGSIQRK - AIMHHEGHMDD	DGLNLSRSQHEESRTARVIRSTVF	
SEQ ID NO: 62	K-LDVGVRKEVDGMGTSEIKYGDSTVLIQHVDT	GLWLTYSYQVAVDVKSARMGSIQRK - AIMHHEGHMDD	DGLNLSRSQHEESRTARVIRSTVF	
SEQ ID NO: 2	LFTKFINGLETTQ - ENRRHSMFFASVNLGEMVM	CLEDLTNYFAQPD	EDMEHEEKQNKFRALNRQDLFQEEGILNL	ILEAIDKINVTSSQ
SEQ ID NO: 128	LFTKFINGLETTQ - ENRRHSMFFASVNLGEMVM	CLEDLTNYFAQPD	EDMEHEEKQNKFRALNRQDLFQEEGILNL	ILEAIDKINVTSSQ
SEQ ID NO: 130	LFTKFINGLETTQ - ENRRHSMFFASVNLGEMVM	CLEDLTNYFAQPD	EDMEHEEKQNKFRALNRQDLFQEEGILNL	ILEAIDKINVTSSQ
SEQ ID NO: 144	LFTKFINGLETTQ - ENRRHSMFFASVNLGEMVM	CLEDLTNYFAQPD	EDMEHEEKQNKFRALNRQDLFQEEGILNL	ILEAIDKINVTSSQ
SEQ ID NO: 146	LFTKFINGLETTQ - ENRRHSMFFASVNLGEMVM	CLEDLTNYFAQPD	EDMEHEEKQNKFRALNRQDLFQEEGILNL	ILEAIDKINVTSSQ
SEQ ID NO: 4	LFTQFISGLENLQ - SNRRSSLFCSFVNLNEMVM	CLEDLTNYFAQPEEDMEHEEKQNRFRALNRQDLFQEEGILNL	ILEAIDKVINIITSQ	
SEQ ID NO: 6	LFTQFISGLENLQ - SNRRSSLFCSFVNLNEMVM	CLEDLTNYFAQPEEDMEHEEKQNRFRALNRQDLFQEEGILNL	ILEAIDKVINIITSQ	
SEQ ID NO: 8	LFTQFIRGLETQ - VNRRHSLFCATVNLNEMVM	CLEDLTNYFAQPADMEHEEKQNRFRALNRQDLFQEEGILNL	ILEAIDKINVTSSQ	
SEQ ID NO: 10	LFTQFITALETQ - SNRRHSIFFQKVNLEVMVM	CLEDLTNYFSQPEDMEHEEKQNRFRALNRQDLFQEEGILNL	ILEAIDKVINIITSQ	
SEQ ID NO: 56	LFTQFITALETQ - SNRRHSIFFQKVNLEVMVM	CLEDLTNYFSQPEDMEHEEKQNRFRALNRQDLFQEEGILNL	ILEAIDKVINIITSQ	
SEQ ID NO: 57	LFTKFINGLETTQ - ENRRHSIFLOTVNLGEMVM	CLEDLTNYFAQPEEDMEHEEKQNRFRALNRQDLFQEEGILNL	ILEAIDKINVTSSQ	
SEQ ID NO: 58	VINKFLKGIDALQLE - GNQSTDWTRVDINEVLK	MEDLIEYFAQPDNEQDFEKKALNRQDLFQEEGILNL	ILEAIDKINVTSSQ	
SEQ ID NO: 59	LFNQFFDALDLSRGEKEDDQLAWNSFNLS	SVVDILEDLIEYFGEPEDEDEHEEKQKALNRQDLFQEEGILNL	ILEAIDKINVTSSQ	
SEQ ID NO: 60	LFNRFIRGLDALS - - - KVKVLP	TIDLPISVSLSQDLIGYFHPDPDEHLEDKQNR	LALKNRQNLQEEGMINLVLECIDRLHVS	SA
SEQ ID NO: 61	LFNRFIRGLDALS - - - KKA	KASSVDLPISVSLSQDLIGYFHPDPDEHLEDKQNR	LALKNRQNLQEEGMINLVLECIDRLHVS	SA
SEQ ID NO: 62	LFNRFIRGLDALS - - - KKA	KASTVDLPISVSLSQDLIGYFHPDPDEHLEDKQNR	LALKNRQNLQEEGMINLVLECIDRLHVS	SA

**FIGURE 1D**

SEQ ID NO: 2	GFLAGFLAGDESGQSWEMISGYLYQLLAAI I KGNHTNCAQFANSNRFNWLF SRLGSQASGEGTGMLDV LHCILIDSPEALNMMRDEHIKV
SEQ ID NO: 128	GFLAGFLAGDESGQSWEMISGYLYQLLAAI I KGNHTNCAQFANSNRNLNWL F SRLGSQASGEGTGMLDV LHCVLIDSPEALNMMRDEHIKV
SEQ ID NO: 130	GFLAGFLAGDESGQSWEMISGYLYQLLAAI I KGNHTNCAQFANSNRNLNWL F SRLGSQASGEGTGMLDV LHCVLIDSPEALNMMRDEHIKV
SEQ ID NO: 144	GFLAGFLAGDESGQSWEMISGYLYQLLAAI I KGNHTNCAQFANSNRNLNWL F SRLGSQASGEGTGMLDV LHCVLIDSPEALNMMRDEHIKV
SEQ ID NO: 146	GFLAGFLAGDESGQSWEMISGYLYQLLAAI I KGNHTNCAQFANSNRNLNWL F SRLGSQASGEGTGMLDV LHCVLIDSPEALNMMRDEHIKV
SEQ ID NO: 4	GFMVS - LAGDESGQSWDVISGYLYQLLAAI I KGNHTNCAQFANTNRNLNWL F SRLGSQASSEGTGMLDV LHCVLIDSPEALNMMKDEHIKV
SEQ ID NO: 6	GFMVS - LAGDESGQSWDVISGYLYQLLAAI I KGNHTNCAQFANTNRNLNWL F SRLGSQASSEGTGMLDV LHCVLIDSPEALNMMKDEHIKV
SEQ ID NO: 8	GFLVS - LAGDESGQSWDIISGYLYQLLAAI I KGNHTNCAQFANSNRNLNWL F SRLGSQASSEGTGMLDV LHCVLIDSPEALNMMRDEHIKV
SEQ ID NO: 10	GFLASFLAGDETGQSWDLIISTYLYQLLAAI I KGNHTNCAQFANSNRNLNWL F SRLGSQASSEGTGMLDV LHCVLIDSPEALNMMRDEHIKV
SEQ ID NO: 56	GFLASFLAGDETGQSWDLIISTYLYQLLAAI I KGNHTNCAQFANSNRNLNWL F SRLGSQASSEGTGMLDV LHCVLIDSPEALNMMRDEHIKV
SEQ ID NO: 57	GFLASFLASDESGQSWDMISGYLYQLLAAI I KGNHTNCAQFANSNRNLNWL F SRLGSQASSEGTGMLDV LHCVLIDSPEALNMMRDEHIKV
SEQ ID NO: 58	PDFAG - LIGEEETHVKWEQISTYLYLVAAAMIKGNHYNCAQFASQRLDWL F GRLSNPQSAEG - - ILDVLYCVLTSPALNMMINEGHIRS
SEQ ID NO: 59	RDFAA - IVGEDAGDLWQDIVTYLYKLLAAAMIRHNHNNCALFAQSVRLDWL INRLESQQASKG - - VLEVLHCVLILGSPALNIIKEGHIKS
SEQ ID NO: 60	AHFAD - VAGREAGESWKSILNSLYELLAALIRGNRKNCAQFSG - - SLDWLIISRLERLEASSG - - ILEVHCVLILGSPALNIIKEGHIKS
SEQ ID NO: 61	AHFAD - VAGREAGESWKSILNSLYELLAALIRGNRKNCAQFSG - - SLDWLIISRLERLEASSG - - ILEVHCVLILGSPALNIIKEGHIKS
SEQ ID NO: 62	AHFAD - VAGREAGESWKSILNSLYELLAALIRGNRKNCAQFSG - - SLDWLIISRLERLEASSG - - ILEVHCVLILGSPALNIIKEGHIKS
SEQ ID NO: 2	IIISLLEKHGRDPKVLDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLTALVDHVSSVRPNIFVGRVEGSAVYRKWYFEVTMDHIE - KT
SEQ ID NO: 128	IIISLLEKHGRDPKVLDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLTALVDHVSSVRPNIFVGRVEGSAVYRKWYFEVTMDHIE - KT
SEQ ID NO: 130	IIISLLEKHGRDPKVLDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLTALVDHVSSVRPNIFVGRVEGSAVYRKWYFEVTMDHIE - KT
SEQ ID NO: 144	IIISLLEKHGRDPKVLDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLTALVDHVSSVRPNIFVGRVEGSAVYRKWYFEVTMDHIE - KT
SEQ ID NO: 146	IIISLLEKHGRDPKVLDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLTALVDHVSSVRPNIFVGRVEGSAVYRKWYFEVTMDHIE - KT
SEQ ID NO: 4	IIISLLEKHGRDPKVLDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLTALVDHVSSVRPNIFVGHVSGSAVYRKWYFEVAIDHVE - QT
SEQ ID NO: 6	IIISLLEKHGRDPKVLDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLTALVDHVSSVRPNIFVGHVSGSAVYRKWYFEVAIDHVE - QT
SEQ ID NO: 8	IIISLLEKHGRDPKVLDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLPQTQLVDHVASVRPNIFVGRVVGSAVYQKWYFEVTMDHIE - QT
SEQ ID NO: 10	VISLLEKHGRDPKVLDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLTQLLVDHVASIRPNIFVGRVVGSSMYQKWYFEVTMDHIE - QT
SEQ ID NO: 56	IIISLLEKHGRDPKVLDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLTQLLVDHVASIRPNIFVGRVVGSSMYQKWYFEVTMDHIE - QT
SEQ ID NO: 57	IIISLLEKHGRDPKVLDVLCSLCVGNGVAVRSSQNNICDYLLPGKNLLLTQLLVDHVASIRPNIFVGRVEGSAIYQKWYFEVTMDHIE - QM
SEQ ID NO: 58	VISLLEKHGRDPKVLDVLSLCEGNGMAVRSSQNNITQYLLPGKDLLLTQTSMDRHHVSSMMPNMLGVVEGSAIFRKKWYFEAEVEHIE - TM
SEQ ID NO: 59	MISQLEKHGRDPKVLDVLCSLCVGNGVAVRSNQNLICDNLPLSRDLLLTQAVDVEVVCMPNVSISVDKNSTVYKKWYFEVAIDKQE - AG
SEQ ID NO: 60	IIISLLDKHGRNHKVLVDVLCSLCVCHGVAVRSNQHLICDNLPLGRDLLLTQTRLVNHVSSMRPNIFLGVSEGSAQYKKWYELMVDHTEPFV
SEQ ID NO: 61	IIISLLDKHGRNHKVLVDVLCSLCVCHGVAVRSNQHLICDNLPLGRDLLLTQTRLVNHVSSMRPNIFLGVSEGSAQYKKWYELMVDHTEPFV
SEQ ID NO: 62	IIISLLDKHGRNHKVLVDVLCSLCVCHGVAVRSNQHLICDNLPLGRDLLLTQTRLVNHVSSMRPNIFLGVSEGSAQYKKWYELMVDHTEPFV

**FIGURE 1E**

SEQ ID NO: 2	THMMPHLRIGWANTTGYVPYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 128	THMMPHLRIGWANTTGYVPYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 130	THMIPHLRIGWANTTGYVPYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 144	THMMPHLRIGWANTTGYVPYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 146	THMMPHLRIGWANTTGYVPYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 4	THLNPHLRIGWANTTGYVPYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 6	THLNPHLRIGWANTTGYVPYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 8	THMTPHLRIGWANTSGYVPYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 10	THMMPHLRIGWANTSGYVPYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 56	THMMPHLRIGWANTSGYVPYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 57	THMTPHLRIGWANTSGYVPYPGGGKKGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 58	TKQTPYLRIGWANSVGFKPPGSGDKMCGNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 59	TSRPVHFRVGWATTQGFRTYLRGEGWNGSVVDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 60	TAEATHLRVGWASTEGYSYPYPPGGGEEWNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 61	TAEATHLRVGWASTEGYSYPYPPGGGEEWNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 62	TAEATHLRVGWASTEGYSYPYPPGGGEEWNGVGDDLYSYGFDGAYLWSGGRKTPVNRTHAEEPIRKGDVIGCALDLTPVLIINFMFNGVR
SEQ ID NO: 2	VTGSFTNFNLEGMFFPVISCSKLSCRFLLGEGHGRIRYAAPEGYSPLVESLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 128	VTGSFTNFNLEGMFFPVISCSKLSCRFLLGEGHGRIRYAAPEGYSPLVESLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 130	VTGSFTNFNLEGMFFPVISCSKLSCRFLLGEGHGRIRYAAPEGYSPLVESLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 144	VTGSFTNFNLEGMFFPVISCSKLSCRFLLGEGHGRIRYAAPEGYSPLVESLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 146	VTGSFTNFNLEGMFFPVISCSKLSCRFLLGEGHGRIRYAAPEGYSPLVESLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 4	VQGAFRDFNLDGMFFPVISCSKSVSCRFLLGGDHGRKFTPPDEFSPLEFETLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 6	VQGAFRDFNLDGMFFPVISCSKSVSCRFLLGGDHGRKFTPPDEFSPLEFETLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 8	IRGCFRDFNLDGMFFPVISCSKSVSCRFLLGGDHGRKFTPPDEFSPLEFETLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 10	VRGSFRDFNLDGMFFPVISCSKSVSCRFLLGGDHGRKFTPPDEFSPLEFETLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 56	VRGSFRDFNLDGMFFPVISCSKSVSCRFLLGGDHGRKFTPPDEFSPLEFETLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 57	VQGCFTDFNLDGMFFPVISCSKSVSCRFLLGGDHGRKFTPPDEFSPLEFETLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 58	MSGFCKFNIDGYFFPVMSCSSKLSKRVSCRFLLGGDHGRKFTPPDEFSPLEFETLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 59	IKASFEGINLEGMFFPVISCSKSVSCRFLLGGDHGRKFTPPDEFSPLEFETLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 60	VQGMFENFIDGLFFPVMSCSSKLSKRVSCRFLLGGDHGRKFTPPDEFSPLEFETLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 61	VQGMFENFIDGLFFPVMSCSSKLSKRVSCRFLLGGDHGRKFTPPDEFSPLEFETLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV
SEQ ID NO: 62	VQGMFENFIDGLFFPVMSCSSKLSKRVSCRFLLGGDHGRKFTPPDEFSPLEFETLLPQQILSLEP--CFYFGNLSKRALAGP-PLVQDDDTAFV

**FIGURE 1F**

SEQ ID NO: 2	PTPVDTLQITLPTYVEQIRDKLAENIHEMWAMNKTIEAGWMYGDQREDLHKIHPCLVPFERLPPAEKRYDIQLAVQTLTKTILALGYVISLD
SEQ ID NO: 128	PTPVDTLQITLPTYVEQIRDKLAENIHEMWAMNKTIEAGWMYGDQREDLHKIHPCLVPFERLPPAEKRYDIQLAVQTLTKTILALGYVISLD
SEQ ID NO: 130	PTPVDTLQITLPTYVEQIRDKLAENIHEMWAMNKTIEAGWMYGDQREDLHKIHPCLVPFERLPPAEKRYDIQLAVQTLTKTILALGYVISLD
SEQ ID NO: 144	PTPVDTLQITLPTYVEQIRDKLAENIHEMWAMNKTIEAGWMYGDQREDLHKIHPCLVPFERLPPAEKRYDIQLAVQTLTKTILALGYVISLD
SEQ ID NO: 146	PTPVDTLQITLPTYVEQIRDKLAENIHEMWAMNKTIEAGWMYGDQREDLHKIHPCLVPFERLPPAEKRYDIQLAVQTLTKTILALGYVISLD
SEQ ID NO: 4	PNPVDTSMTLPSYIENIKDKLAENIHEMWAMNKTIEAGWQYGDKNRDTKRYHPCLIQFDKLPAAEKRYDSQLAVQTLTKTILALGYHISID
SEQ ID NO: 6	PNPVDTSMTLPSYIENIKDKLAENIHEMWAMNKTIEAGWQYGDKNRDTKRYHPCLIQFDKLPAAEKRYDSQLAVQTLTKTILALGYHISID
SEQ ID NO: 8	PTPVDTTKVSPLPNYIESIRDKLAENIHEMWAMNKTIEAGWGFGEKRRDDIRKVHPCLIQFDQLPAAEKRYDSQLAVQTLTKTILALGYIITMD
SEQ ID NO: 10	PKPVDTTGVTLPSSVDQIKEKLAENIHEMWALNKTIEAGWSWGEHRDDYHRHPCLTHFEKLPAAEKRYDNQLAVQTLTKTILALGYIITMD
SEQ ID NO: 56	PKPVDTTGVTLPSSVDQIKEKLAENIHEMWALNKTIEAGWSWGEHRDDYHRHPCLTHFEKLPAAEKRYDNQLAVQTLTKTILALGYIITMD
SEQ ID NO: 57	PKPVDTSIVTLPSVETIKDKLAENIHEMWALNKTIEAGWTGERRDDVYRHPCLTSFEKLPAAEKRYDNQLAVQTLTKTILALGYIITMD
SEQ ID NO: 58	PTPIDVSAQNLNHHATEHQKYAENLHELWAMPKTIEAGWSYGETRSETSRKHPCITKFEYLPETEKKNILLALTMMKTIEALGYHLITE
SEQ ID NO: 59	PAPVDTSQIVLPPHLERIRERLAENIHELWCMNKTIEAGWTGVPVDDSKKVDLSLMFFSSLSSEQEKNFDTIMAYETLRTLMALGYHISID
SEQ ID NO: 60	PVPVDTSQIVLPPHLERIRERLAENIHELWCMNKTIEAGWQYGPVDDNKRQHPCLVEFEKLPPEQERNYNLQMSLETTLKTLALGCHVGIA
SEQ ID NO: 61	PVPVDTSQIVLPPHLERIRERLAENIHELWCMNKTIEAGWQYGPVDDNKRQHPCLVEFEKLPPEQERNYNLQMSLETTLKTLALGCHVGIS
SEQ ID NO: 62	PIPVDTSQIVLPPHLERIRERLAENIHELWCMNKTIEAGWQYGPVDDNKRQHPCLVEFEKLPPEQERNYNLQMSLETTLKTLALGCHVGIS
SEQ ID NO: 2	KPPAR--IRNVRLPNEPFPMSNGYKPAPLDLISAVTLTPKMDELVGQLAENTHNLWARERIQCGWTYGLNE--DSDMHRSPHLVPYPKVDD
SEQ ID NO: 128	KPPAR--IRNVRLPNEPFPMSNGYKPAPLDLISAVTLTPKMDELVGQLAENTHNLWARERIQCGWTYGLNE--DSDMHRSPHLVPYPKVDD
SEQ ID NO: 130	KPPAR--IRNVRLPNEPFPMSNGYKPAPLDLISAVTLTPKMDELVGQLAENTHNLWARERIQCGWTYGLNE--DSDMHRSPHLVPYPKVDD
SEQ ID NO: 144	KPPAR--IRNVRLPNEPFPMSNGYKPAPLDLISAVTLTPKMDELVGQLAENTHNLWARERIQCGWTYGLNE--DSDMHRSPHLVPYPKVDD
SEQ ID NO: 146	KPPAR--IRNVRLPNEPFPMSNGYKPAPLDLISAVTLTPKMDELVGQLAENTHNLWARERIQCGWTYGLNE--DSDMHRSPHLVPYPKVDD
SEQ ID NO: 4	NPPSR--IKTVRLPNEPFPMSNGYKPAPLDLISAIILSGKMEELIDQLAENTHNLWAKERIQCGWTYGLNE--ELQMLRSPHLVPYSKVDD
SEQ ID NO: 6	NPPSR--IKTVRLPNEPFPMSNGYKPAPLDLISAINLSGKMEELIDQLAENTHNLWAKERIQCGWTYGLNE--ELQMLRSPHLVPYSKVDD
SEQ ID NO: 8	KPPSR--IKTIRLPNEPFPMSNGYKPAPLDLITAIISLTPKMEELVDQLAENTHNLWAKERIQCGWTYGLNE--DSDMLRSPHLVPYCKVDE
SEQ ID NO: 10	KPPAR--IRPVRLPNEPFPMSNGYKPAPLDLISAVTLTPKLEELVDQLAENTHNLWAKERIQCGWTYGLNE--DSENHRSPHLVPYAKVDE
SEQ ID NO: 56	KPPAR--IRPVRLPNEPFPMSNGYKPAPLDLISAVTLTPKLEELVDQLAENTHNLWAKERIQCGWTYGLNE--DSENHRSPHLVPYAKVDE
SEQ ID NO: 57	KPPAR--IRPIRLPNDPYMQNGYKPAPLDLISAVTLTPKMEELVDQLAENTHNLWAKERIQCGWTYGLNE--DSENLRSPLHVPYSKVDE
SEQ ID NO: 58	DPPCR--LRAVRLGPN-FQQNGYKPGPLDTHIEQLPAELQPLTEALARNTHNIWAKEIKRGWTFGLSEHVDATQKRSPLHVPYEQVDE
SEQ ID NO: 59	EETSSTLKRLLPMMN-YLMSNGYKPAPNLSTIHLNVKMEKLVELLAEAHNVWAKDRIAGWTYGLSE--ETSFKRNPLQVPYNQLMD
SEQ ID NO: 60	DEHAEEKVKMKLPKN-QYLTSGYKPAAMDLSFIKLTSPSQEAMVDKLAENAHNVWARDRIQGWYIGIQ--DVKNRRNPRLPVYTLDD
SEQ ID NO: 61	DEHAEEKVKMKLPKN-QYLTSGYKPAAMDLSFIKLTSPSQEAMVDKLAENAHNVWARDRIQGWYIGIQ--DVKNRRNPRLPVYTLDD
SEQ ID NO: 62	DEHAEDKVKMKLPKN-QYLTSGYKPAAMDLSFIKLTSPSQEAMVDKLAENAHNVWARDRIQGWYIGIQ--DVKNRRNPRLPVYTLDD



**FIGURE 1C**

SEQ ID NO: 2	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 128	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 130	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 144	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 146	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLLEASKQKQADFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 4	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLTDDNSNRILTFRTYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 6	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLTDDNSNRILTFRTYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 8	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLAEASRLRQTHFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 10	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLAEASRLRQTHFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 56	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLAEASRLRQTHFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 57	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLAEASRLRQTHFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 58	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLAEASRLRQTHFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 59	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLAEASRLRQTHFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 60	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLAEASRLRQTHFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 61	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLAEASRLRQTHFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 62	AIKKANRDTASETVRTLIVGYMIDPPPTGEQHEA-----LLAEASRLRQTHFRTRYAEKNYAVSSGKWYFEFEILTAGPMRVGWAHADMAP
SEQ ID NO: 2	GMMLGQDENSWAFFDGYNEEKVYSGNTESFGKQWAGDVGVFLDLIDKTIISFSLNGELLMALGGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 128	GMMLGQDENSWAFFDGYNEEKVYSGNTESFGKQWAGDVGVFLDLIDKTIISFSLNGELLMALGGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 130	GMMLGQDENSWAFFDGYNEEKVYSGNTESFGKQWAGDVGVFLDLIDKTIISFSLNGELLMALGGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 144	GMMLGQDENSWAFFDGYNEEKVYSGNTESFGKQWAGDVGVFLDLIDKTIISFSLNGELLMALGGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 146	GMMLGQDENSWAFFDGYNEEKVYSGNTESFGKQWAGDVGVFLDLIDKTIISFSLNGELLMALGGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 4	GYQIGSDENSWAFFDGYNEEKIYMGTAESFGRQWQVGVFLDLMDHTIISFSLNGELLMALGGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 6	GYQIGSDENSWAFFDGYNEEKIYMGTAESFGRQWQVGVFLDLMDHTIISFSLNGELLMALGGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 8	GSQIGSDENSWAFFDGYNEEKIYMGTAESFGRQWQVGVFLDLMDHTIISFSLNGELLMALGGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 10	GAMLGSEDTSWAFFDGHNVTKMHAGSIEHFGVRYEAGDVIGCFIDVKEQTIISFSLNGELLMALGGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 56	GAMLGSEDTSWAFFDGHNVTKMHAGSIEHFGVRYEAGDVIGCFIDVKEQTIISFSLNGELLMALGGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 57	GTMLGSDDASWAFFDGYN-----IGQK
SEQ ID NO: 58	EIQIGSDDASWAFFDGYN-----IGQK
SEQ ID NO: 59	RSEVGTGDCSFAFDGFLARKWHQGS--ETFGKWTGEMDVIGCMNLVDNTISFTMNGEYLCDPSGSEMAFHDIEIGEG-FVPVCMMLAAGEK
SEQ ID NO: 60	DLEIGSDDRAFAFDGFLARKWHQGS--EHYGRSWQAGDVVGVFLDLMDHTIISFSLNGELLMALGGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 61	DQELGSDDERAFAFDGFLARKWHQGS--EHYGRSWQAGDVVGVFLDLMDHTIISFSLNGELLMALGGETTFADVQGDN--FVPACTLGVGQK
SEQ ID NO: 62	DQELGSDDERAFAFDGFLARKWHQGS--EHYGRSWQAGDVVGVFLDLMDHTIISFSLNGELLMALGGETTFADVQGDN--FVPACTLGVGQK

**FIGURE 1H**

SEQ ID NO: 2	ARLTGQDVNTLKYFTTCGLQEGYEPFCVNMKRDVTHWYTKQOPIFENTDEMID-TRIDVTRIPAGSDTPPCLKISHNTFE----
SEQ ID NO: 128	ARLTGQDVNTLKYFTTCGLQEGYEPFCVNMKRDVTHWYTKQOPIFENTDEMID-TRIDVTRIPAGSDTPPCLKISHNTFE----
SEQ ID NO: 130	ARLTGQDVNTLKYFTTCGLQEGYEPFCVNMKRDVTHWYTKQOPIFENTDEMID-TRIDVTRIPAGSDTPPCLKISHNTFE----
SEQ ID NO: 144	ARLTGQDVNTLKYFTTCGLQEGYEPFCVNMKRDVTHWYTKQOPIFENTDEMID-TRIDVTRIPAGSDTPPCLKISHNTFE----
SEQ ID NO: 146	ARLTGQDVNTLKYFTTCGLQEGYEPFCVNMKRDVTHWYTKQOPIFENTDEMID-TRIDVTRIPAGSDTPPCLKISHNTFE----
SEQ ID NO: 4	AKLTFGQDVNSLKYFTTCGLQEGYEPFCVNMKRPVAYWYTKDQOPIFENTDDFS--SVIDVTRIPAGSDTPPCLKISHNTFE----
SEQ ID NO: 6	AKLTFGQDVNSLKYFTTCGLQEGYEPFCVNMKRPVAYWYTKDQOPIFENTDDFS--SVIDVTRIPAGSDTPPCLKISHNTFE----
SEQ ID NO: 8	AKLTFGQDVNSLKYFTTCGLQEGYEPFCVNMKRPVAYWYTKDQOPIFENTDDFS--SVIDVTRIPAGSDTPPCLKISHNTFE----
SEQ ID NO: 10	ARLIYGQDVNSLKYFTTCGLQEGYEPFCVNMKRPVTHWYTKDQOPIFENTEMPDP-CRIDVTRIPAGSDTPPCLKISHNTFE----
SEQ ID NO: 56	ARLIYGQDVNSLKYFTTCGLQEGYEPFCVNMKRPVTHWYTKDQOPIFENTEMPDP-CRIDVTRIPAGSDTPPCLKISHNTFE----
SEQ ID NO: 57	ARVYGGQDVNSLKYFTTCGLQEGYEPFCVNMKRPVTHWYTKDQOPIFENTDEIPE-CKIDVTRIPAGSDTPPCLKISHNTFE----
SEQ ID NO: 58	GRLNFGQDVNSLKYFTTCGLQEGYEPFCVNMKRPVTHWYTKDQOPIFENTDEIPE-CKIDVTRIPAGSDTPPCLKISHNTFE----
SEQ ID NO: 59	AHLHFGQDVNSLKYFTTCGLQEGYEPFCVNMKSMPLWYSKQPMFQSIIEDEH--DRLGITRIPAGIEGPPCLKVSHKCG-----TVENL
SEQ ID NO: 60	GRMNFQKDVSTLKYFTTCGLQEGYEPFAVNTNRDITMWLSKRLPQLQVPSNH--EHIEVTRIDGTIDSSPCLKVTKSFGS----QNNNT
SEQ ID NO: 61	GRMNFQKDVSTLKYFTTCGLQEGYEPFAVNTNRDITMWLSKRLPQLQVPSNH--EHIEVTRIDGTIDSSPCLKVTKSFGS----QNSNT
SEQ ID NO: 62	GRMNFQKDVSTLKYFTTCGLQEGYEPFAVNTNRDITMWLSKRLPQLQVPSNH--EHIEVTRIDGTIDSSPCLKVTKSFGS----QNSNT

SEQ ID NO: 2	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMS-----AHIDQIMRSGFTWMDIKGLHYE-DNQEE
SEQ ID NO: 128	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIDQIMRSGFTWMDIKGLHYE-DNQEE
SEQ ID NO: 130	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIDQIMRSGFTWMDIKGLHYE-DNQEE
SEQ ID NO: 144	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIDQIMRSGFTWMDIKGLHYE-DNQEE
SEQ ID NO: 146	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIDQIMRSGFTWMDIKGLHYE-DNQEE
SEQ ID NO: 4	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIERIMKSGFSMSDIKGLHRYGSDDPV
SEQ ID NO: 6	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIERIMKSGFSMSDIKGLHRYGSDDPV
SEQ ID NO: 8	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIERIMKSGFSMSDIKGLHRYGSDDPV
SEQ ID NO: 10	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIERIMKSGFSMSDIKGLHRYGSDDPV
SEQ ID NO: 56	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIERIMKSGFSMSDIKGLHRYGSDDPV
SEQ ID NO: 57	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIERIMKSGFSMSDIKGLHRYGSDDPV
SEQ ID NO: 58	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIERIMKSGFSMSDIKGLHRYGSDDPV
SEQ ID NO: 59	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIERIMKSGFSMSDIKGLHRYGSDDPV
SEQ ID NO: 60	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIERIMKSGFSMSDIKGLHRYGSDDPV
SEQ ID NO: 61	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIERIMKSGFSMSDIKGLHRYGSDDPV
SEQ ID NO: 62	NWEFLRLSLPVIChNEFIDEAEKARRWVEIKDRQILMK-----EAVEAQMP-----AHIERIMKSGFSMSDIKGLHRYGSDDPV



**FIGURE 1I**

SEQ ID NO:2	LPSSKMK-----RLP--SRPPRK--GSMTRGVTIQYNNLQPGQVNGMHRSTSEAEWAKYDLGAQGLTP-D-DKDKKRGSRSPFK
SEQ ID NO:128	LPSSKMK-----RLP--SRPPRK--GSMTRGVTIQYNNLQPGQVNGMHRSTSEAEWAKYDLGAQGLTP-D-DKDKKRGSRSPFK
SEQ ID NO:130	LPSSKMK-----RLP--SRPPRK--GSMTRGVTIQYNNLQPGQVNGMHRSTSEAEWAKYDLGAQGLTP-D-DKDKKRGSRSPFK
SEQ ID NO:144	LPSSKMK-----RLP--SRPPRK--GSMTRGVTIQYNNLQPGQVNGMHRSTSEAEWAKYDLGAQGLTP-D-DKDKKRGSRSPFK
SEQ ID NO:146	LPSSKMK-----RLP--SRPPRK--GSMTR-----GQVNGMHRSTSEAEWAKYDLGAQGLTP-D-DKDKKRGSRSPFK
SEQ ID NO:4	ENDEIMPNTAPLPPRGKNQPPPPRPKR--GSLSRHDDLTIEN-----DGKLNRSSELNFNIYNHONGDQDINKODKKKRGSRSPFR
SEQ ID NO:6	ENDEMPNTAPLPPRGKNQPPPPRPKR--GSLSRHDDLTIEN-----DGKLNRSSELNFNIYNQONGNQDINKODKKKRGSRSPFR
SEQ ID NO:8	EADMMMQSTPTTKSKMRQP--SRPPRK--GSLSRNEDMPING--SLEQSKMNRSTSELDLNRYNADLQN---DKDDKKKRGSRSPFR
SEQ ID NO:10	AEADHMM-----RGP--NRPPRK--GSLTRN-----ITFETMSAALDEMQRSTSVLDMNGLGE-EMDDKKKRGSRSPFK
SEQ ID NO:56	AEADHMM-----RGP--NRPPRK--GSLTRN-----ITFETMSAALDEMQRSTSVLDMNGLGE-EMDDKKKRGSRSPFK
SEQ ID NO:57	EADMMR-----NGP--RRPSRHQGRGLSP-----PGIEINGEATSDGELNAYSADNELEGG-----DDRKKKRGSRSPFR
SEQ ID NO:58	RTNSKQPSVDG-----DEP--PAVPRS-----LLELP-----HD-ERQIAEDSWRDLNDRHSEKPKKGLLSRLRDSSTNTRKNFR
SEQ ID NO:59	RVNGYNGDTK-----ELT--KKEKKK--LASLP-----LGRKIPMSRAASSETSTVQSPDSSF--ERSGSPSPAKSKSKFT
SEQ ID NO:60	EFNNHKDYAQ-----EKP--SRLKQR--FLLR-----RTKPDYSTGHSARLT
SEQ ID NO:61	EFNNHKDYAQ-----EKP--SRLKQR--FLLR-----RTKPDYSTGHSARLT
SEQ ID NO:62	EFNNHKDYAQ-----EKP--SRLKQR--FLLR-----RTKPDYSTGHSARLT
SEQ ID NO:2	FFRSK---RGESSDRAKSRKSKTDPDPFSDTEVSPERGA---RRPNPQIKVSQANQR-YNGMNAARPSRTNLYGSQVGLNSNAQMATPTQD
SEQ ID NO:128	FFRSK---RGESSDRAKSRKSKTDPDPFSDTEVSPERGA---RRPNPQIKVSQANQR-YNGMNAARPSRTNLYGSQVGLN---MATPTQD
SEQ ID NO:130	FFRSK---RGESSDRAKSRKSKTDPDPFSDTEVSPERGA---RRPNPQIKVSQANQR-YNGMNAARPSRTNLYGSQVGLN---MATPTQD
SEQ ID NO:144	FFRSK---RGESSDRAKSRKSKTDPDPFSDTEVSPERGA---RRPNPQIKVSQANQR-YNGMNAARPSRTNLYGSQVGLNSNAQMATPTQD
SEQ ID NO:146	FFRSK---RGESSDRAKSRKSKTDPDPFSDTEVSPERGA---RRPNPQIKVSQS---N-AQ-----MATPTQD
SEQ ID NO:4	FFSRK---KEGPSDNPKRAKTPDPARNVDRPRNAHPRNTLNERVTPOIRVSQMDLK-LVPPAIPDR-----PGG
SEQ ID NO:6	FFSRK---KEGPSDNPKRAKTPDPARNVDRPRNAHPRNTLNERITPOIRVSQMDLK-LVPPAIPDR-----PGG
SEQ ID NO:8	FFSRK---REASNERSKKAKSPFNPMMEADRGOMGRS-QHHMMRTPTVKVTAPDMK-VIPPTIPER-----SNM
SEQ ID NO:10	FFSKKS--RDQREKMGARTLDTSLERRNTVA---HGR---NVVNQOMTTTAPTILR-LNNAEIPPS-----PVPQG
SEQ ID NO:56	FFSKKS--RDQREKMGARTLDTSLERRNTVA---HGR---NVVNQOMTTTAPTILR-LNNAEIPPS-----PVPQG
SEQ ID NO:57	LFGKK--RDQSKDKLDRRTPEPEPRKS-----NLKVTQRQATR-MSNSDLR-----AQA
SEQ ID NO:58	DSDRKKEKAAQLRQMKANSRSDAGSLDTSTLPTGQK---DVLASSEMPLSGPGRQLTIKRSSIKKNKK-----GKKAELA
SEQ ID NO:59	KSSMDSGAKHPEDTLAKPTGYEVDGQSPGAARRGKK--HDLRLTPEASPPGTLTREYIPLKSDNEGSV-----GSDNHGR
SEQ ID NO:60	-----EDVLG-----
SEQ ID NO:61	-----EDVLAD-----
SEQ ID NO:62	-----EDVLAD-----

**FIGURE 1J**

SEQ ID NO:2	RKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDP	THMYIGWVTTQYHLHLSKDFNQSK-VTKSSVIIITDDYDR
SEQ ID NO:128	RKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDP	THVYIGWVTTQYHLHLSKDFNQSK-VTKSSVIIITDDYDR
SEQ ID NO:130	RKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDP	THVYIGWVTTQYHLHLSKDFNQSK-VTKSSVIIITDDYDR
SEQ ID NO:144	RKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDP	THVYIGWVTTQYHLHLSKDFNQSK-VTKSSVIIITDDYDR
SEQ ID NO:146	RKQMTTSTLAQ-----SATETVGN-EIFDAECLKLINEFYGVRIYPGQDP	THVYIGWVTTQYHLHLSKDFNQSK-VTKSSVIIITDDYDR
SEQ ID NO:4	PKAMSFPTPS-----AGIEFVGN-EIFDLECLKLINEYYYGVRIFFPGQDP	THVYGVWVTTQYHLHTKDFSQNH-VRKSTVTIVDEHNG
SEQ ID NO:6	PKAMSFPTPS-----AGIEFVGN-EIFDLECLKLINEYYYGVRIFFPGQDP	THVYGVWVTTQYHLHTKDFSQNH-VRKSTVTIVDEHNR
SEQ ID NO:8	PKQMTGAPLSG-----SGIESVGN-EIFDGECLKLINEFYGVRIFFPGQDP	THVYGVWVTTQYHFFANEFNQSK-VRKVTVTHTLDEFNR
SEQ ID NO:10	PKQLSGSNLQ-----QPVETSGD-EMFDAECLKLINEFYGVRIFFPGQDP	THVYGVWVTTQYHLHSREFNKNK-VRRGSVYIEDDYEM
SEQ ID NO:56	PKQLSGSNLQ-----QPVETSGD-EMFDAECLKLINEFYGVRIFFPGQDP	THVYGVWVTTQYHLHSREFNKNK-VRRGSVYIEDDYEM
SEQ ID NO:57	PLTPERKGMGS-----PQVESFGN-EVVDADCLRLINEFYGVRIFFPGQDP	THVYGVWVTTQYHVHSKEFSQNK-VRHAAIYVEDENEK
SEQ ID NO:58	LEKWEREKKGSIIIPMDAQLDVLQEGDAHALVHHKQVDEYYYGIRIFPGQDP	SQVWVWVTTQYHYNNVNFDSQSGVVRKCRFSEADHHGT
SEQ ID NO:59	PRLAKLVSMGSSFDVFSKSIDIMSDISEADSIDLMMTKFYYSVRIFPGQDP	TDIHVGWVTPGYHHYSPHFDPK-TSEVTVMMLGENGG
SEQ ID NO:60	-----DRDDYELMQTSTYYYSVRIFFPGQEPANVWVWITSD	FHQYDTGFDLDR-VRTVTVTTLGDEKKG
SEQ ID NO:61	-----DRDDYDFLMQSTYYYSVRIFFPGQEPANVWVWITSD	FHQYDTGFDLDR-VRTVTVTTLGDEKKG
SEQ ID NO:62	-----DRDDYDFLMQSTYYYSVRIFFPGQEPANVWVWITSD	FHQYDTGFDLDR-VRTVTVTTLGDEKKG
SEQ ID NO:2	VVENVNRQSCYMVRADEL	YNEVMARATAGASQGMFIGSVDTSTGSVFTCEGKDTSF
SEQ ID NO:128	VVENVNRQSCYMVRADEL	YNEVMARATAGASQGMFIGSVDTSTGSVFTCEGKDTSF
SEQ ID NO:130	VVENVNRQSCYMVRADEL	YNEVMARATAGASQGMFIGSVDTSTGSVFTCEGKDTSF
SEQ ID NO:144	VVENVNRQSCYMVRADEL	YNEVMARATAGASQGMFIGSVDTSTGSVFTCEGKDTSF
SEQ ID NO:146	VVENVNRQSCYMVRADEL	YNEVMARATAGASQGMFIGSVDTSTGSVFTCEGKDTSF
SEQ ID NO:4	ILESIDRQSCYMVRSDEL	YNEVINDSSGKAASQGMFIGCFID
SEQ ID NO:6	ILESIDRQSCYMVRSDEL	YNEVINDSSGKAASQGMFIGCFID
SEQ ID NO:8	VNESIDRQSCYMVRSDEL	FNEVINDSSGKAASQGMFIGCFVDAATGYISFTCEGKETSHK
SEQ ID NO:10	ATIERIDRQSCYVVRAD	ELFNEVTQDASGKASQGMFIGCFVDTATGIIIRFTCEGKDTSHR
SEQ ID NO:56	ATIERIDRQSCYVVRAD	ELFNEVTQDASGKASQGMFIGCFVDTATGIIIRFTCEGKDTSHR
SEQ ID NO:57	TIEIVNRQSCYMVRADEL	FNEVTQDSSGKAASQGMFIGCFVDTATGIIIRFTCEGKETSHV
SEQ ID NO:58	TVDSVQSQNCYMNVS	ELLATTI--PDVANTKVSGLTIGCLIDTSIGELSFQVGS
SEQ ID NO:59	VQESSKRDCFTVCVGDHMDLLI	-TPEGRRISGLVGVGVDAACNGELYFTINGRDIS
SEQ ID NO:60	VHESIKRSNCYMVCA	GESMS----PGQGRNNNGLEIGCVVDAASGLLTFIANGKELSTYYQ
SEQ ID NO:61	VHESIKRSNCYMVCA	GESMS----PGQGRNNNGLEIGCVVDAASGLLTFIANGKELSTYYQ
SEQ ID NO:62	VHESIKRSNCYMVCA	GESMS----PGQGRNNNGLEIGCVVDAASGLLTFIANGKELSTYYQ

**FIGURE 1K**

SEQ ID NO:2	-----SATSLPLSAAVLPTSDKHVPIQFPRLKVQCLKPHQWARVPNQSLQVHALKLSGIRGWSMLCEDAVSMLAL
SEQ ID NO:128	-----SATSLPLSAAVLPTSDKHVPIQFPRLKVQCLKPHQWARVPNQSLQVHALKLSGIRGWSMLCEDAVSMLAL
SEQ ID NO:130	-----SATSLPLSAAVLPTSDKHVPIQFPRLKVQCLKPHQWARVPNQSLQVHALKLSGIRGWSMLCEDAVSMLAL
SEQ ID NO:144	-----SATSLPLSAAVLPTSDKHVPIQFPRLKVQCLKPHQWARVPNQSLQVHALKLSGIRGWSMLCEDAVSMLAL
SEQ ID NO:146	-----SATSLPLSAAVLPTSDKHVPIQFPRLKVQCLKPHQWARVPNQSLQVHALKLSGIRGWSMLCEDAVSMLAL
SEQ ID NO:4	-----TSTTLPLSAAVLQNSERHVLPOFPRLKVQCLRPHQWARVPNDLSHIHTLKLSDIRGWSILCEDPVSMLAL
SEQ ID NO:6	-----TSTTLPLSAAVLQNSERHVLPOFPRLKVQCLRPHQWARVPNDLSHIHTLKLSDIRGWSILCEDPVSMLAL
SEQ ID NO:8	-----TSTTLPLSAAVLQNSERHVNPOFPRLKVQCLRPHQWARVPNTALQVHALKLSGIRGWSMLCEDPVSMLAL
SEQ ID NO:10	-----TPTTPLSAAVLPTSDKHINPOQFPRLKVQCLRPHQWARVPNTALQVHALKLSGIRGWSMLCEDPVSMLAL
SEQ ID NO:56	-----TPTTPLSAAVLPTSDKHINPOQFPRLKVQCLRPHQWARVPNTALQVHALKLSGIRGWSMLCEDPVSMLAL
SEQ ID NO:57	-----TPTTPLSAAVLPTSDKHINPOQFPRLKVQCLRPHQWARVPNTALQVHALKLSGIRGWSMLCEDPVSMLAL
SEQ ID NO:58	-----IKYTFPLSAAAFKSCSKSLVPCFPRLTVEQIESVYWARVPNETLRTTALKSEVRGWSVLCNDPVRIMSV
SEQ ID NO:59	KILERRSSVQSEIAQMSVNQCLPLSAAWFRGDTHNPTPQCPSPRVEQVMYTNWTWARAPLQTMNIETKKMSDNNNGWLVSCEPVSMLGV
SEQ ID NO:60	-----IKNVMPISAGLIFKSEHKNPVPCFPRLHVQFLSHVLWSRMPNQFLKVDVSRISERQGLVQCLDPLQFMSL
SEQ ID NO:61	-----IKNVMPISAGLIFKSEHKNPVPCFPRLHVQFLSHVLWSRMPNQFLKVDVSRISERQGLVQCLDPLQFMSL
SEQ ID NO:62	-----IKNVMPISAGLIFKSEHKNPVPCFPRLHVQFLSHVLWSRMPNQFLKVDVSRISERQGLVQCLDPLQFMSL
SEQ ID NO:2	HIPEEDRCIDILELIEMDKLLSFHSHTLTLYAALCYQSNYRAAAHALCSHADQKQLLYAIQSYMSGPLRQGFYDILLTALHLESHATTMEA
SEQ ID NO:128	HIPEEDRCIDILELIEMDKLLSFHSHTLTLYAALCYQSNYRAAAHALCTHVDQKQLLYAIQSYMSGPLRQGFYDILLTALHLESHATTMEA
SEQ ID NO:130	HIPEEDRCIDILELIEMDKLLSFHSHTLTLYAALCYQSNYRAAAHALCTHVDQKQLLYAIQSYMSGPLRQGFYDILLTALHLESHATTMEA
SEQ ID NO:144	HIPEEDRCMDILELIEMDKLLSFHSHTLTLYAALCYQSNYRAAAHALCTHVDQKQLLYAIQSYMSGPLRQGFYDILLTALHLESHATTMEA
SEQ ID NO:146	HIPEEDRCIDILELIEMDKLLSFHSHTLTLYAALCYQSNYRAAAHALCTHVDQKQLLYAIQSYMSGPLRQGFYDILLTALHLESHATTMEA
SEQ ID NO:4	HIPEEDRCIDILELIEMDKLLSFHAHTLTLYAALCYQSNYRAAAHILCTHVNQKQLLYAICSEYMSGPLRQGFYDILLTALHLESHATTMEV
SEQ ID NO:6	HIPEEDRCIDILELIEMDKLLSFHAHTLTLYAALCYQSNYRAAAHILCTHVNQKQLLYAICSEYMSGPLRQGFYDILLTALHLESHATTMEV
SEQ ID NO:8	HIPEEDRSIDILELIEMDKLLSFHAHTLTLYAALCFQSNYRAAAHILCTHVNQKQLLYAICSEYMSGPLRQGFYDILLTALHLESHATTMEV
SEQ ID NO:10	RIPEEDRCIDILELIEMDKLLSFHAHTLTLYAALCYQSNYRAAAHALCQHVQKQLLYAIRSEYMSGPLRQGFYDILLTALHLESHATTMEV
SEQ ID NO:56	HIPEEDRCIDILELIEMDKLLSFHAHTLTLYAALCYQSNYRAAAHALCQHVQKQLLYAIRSEYMSGPLRQGFYDILLTALHLESHATTMEV
SEQ ID NO:57	HIPEEDRCIDILELIEIDRLQLFHHTLTLYSALCYQSNYRAAAHALCSHVQKQLLYAICSEYMSGPLRQGFYDILLTALHLESHATTMEV
SEQ ID NO:58	YIPEKQSDILELIEIDRLQLFHHTLTLYSALCYQSNYRAAAHALCSHVQKQLLYAICSEYMSGPLRQGFYDILLTALHLESHATTMEV
SEQ ID NO:59	HIPEENRCMDILELIEVEHEDLLKFHAHTLRLYCSVCSHGNNHVAHALINHVNEQDQMYCLQCPYISGPLRIGYNNLLHALHLQTHVSARUK
SEQ ID NO:60	HIPEENRSVDILELIEVEHEDLLKFHAHTLRLYSAVCAVGNNHVAHALCSHVDEPQLLYAIENKYPGLLRAGYVDLLIDIHLSYATARLM
SEQ ID NO:61	HIPEENRSVDILELIEVEHEDLLKFHAHTLRLYSAVCAVGNNHVAHALCSHVDEPQLLYAIENKYPGLLRAGYVDLLIDIHLSYATARLM
SEQ ID NO:62	HIPEENRSVDILELIEVEHEDLLKFHAHTLRLYSAVCAVGNNHVAHALCSHVDEPQLLYAIENKYPGLLRAGYVDLLIDIHLSYATARLM

**FIGURE 1L**

SEQ ID NO: 2	CKNEFVPLGPELKALYEEDMG--HSLR-----SLQTESVRPQMKMTDIA-----ESITEISNLYSPYFFPLEVVRREF
SEQ ID NO: 128	CKNEFVPLGPELKALYEEDMG--HSLR-----SLQTESVRPQMKMTDIA-----ESITEISNLYSPYFFPLEVVRAREF
SEQ ID NO: 130	CKNEFVPLGPELKALYEEDMG--HSLR-----SLQTESVRPQMKMTDIA-----ESITEISNLYSPYFFPLEVVRREF
SEQ ID NO: 144	CKNEFVPLGPELKALYEEDMG--HSLR-----SLQTESVRPQMKMTDIA-----ESITEISNLYSPYFFPLEVVRREF
SEQ ID NO: 146	CKNEFVPLGPELKALYEEDMG--HSLR-----SLQTESVRPQMKMTDIA-----ESITEISNLYSPYFFPLEVVRREF
SEQ ID NO: 4	CKXEYIIPLGHELTLYDDPQMG--HSLR-----SLQTESVRPQMKMTDIA-----VIDNVRNLYSPYFFPLQVVREY
SEQ ID NO: 6	CKNEYIIPLGHELTALYDDPQMG--HSLR-----SLQTESVRPQMKMTDIA-----VIDNVRNLYSPYFFPLQVVREY
SEQ ID NO: 8	CKNEFIIPIGQELKDVYEDPMC--HSLR-----SLKTESVLPQMKMTDIA-----PSEVVDNIRSLYSPQFPPLDVVRDF
SEQ ID NO: 10	CKNEYITPLGAELKELYSDEEMQ--HSLR-----SLVATESVRPQMRMTDIA-----EPIPDIDQLYSPKFPFLEVVRQF
SEQ ID NO: 56	CKNEYITPLGAELKELYSDEEMQ--HSLR-----SLVATESVRPQMRMTDIA-----EPIPDIDQLYSPKFPFLEVVRQF
SEQ ID NO: 57	CKNEYIIPLGSELRELYIDPMC--HSLR-----SLQTLVSRPEMNMTEIAPTSSQSNMPTIVADSSSEPIPAIDSLYSPRFPFLEVVRREF
SEQ ID NO: 58	MAKEYVPLVPQLQIKNVLPDS--ESRYPQITGESVMSLSQMASEPVK-----KHVSREDEMCKLLPPSVDFEALKKH
SEQ ID NO: 59	TQDEFITPLMAGPKPVDEELD ISSMSIKRALSTTKSVSRPQNLIGPSAD--S-----SHQSFQSMKASEQAPPGFNMVILKQH
SEQ ID NO: 60	MNNEFIVPMTTEETKSITLFPDENKKHGLP--GIGLSTSLRPRMRF-----SSPSFVSIENDCYQSPFEPFLDILKAK
SEQ ID NO: 61	MNNEFIVPMTTEETKSITLFPDENKKHGLP--GIGLSTSLRPRMRF-----SSPSFVSIENDCYQSPFEPFLDILKAK
SEQ ID NO: 62	MNNEFIVPMTTEETKSITLFPDENKKHGLP--GIGLSTSLRPRMRF-----SSPSFVSIENDCYQSPFEPFLDILKSK
SEQ ID NO: 2	VMQALAEAVETNQVHNWDPVGGSNENLFLPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----S
SEQ ID NO: 128	VMQALAEAVETNQVHNWDPVGGSNENLFLPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----S
SEQ ID NO: 130	VMQALAEAVETNQVHNWDPVGGSNENLFLPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----S
SEQ ID NO: 144	VMQALAEAVETNQVHNWDPVGGSNENLFLPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----S
SEQ ID NO: 146	VMQALAEAVETNQVHNWDPVGGSNENLFLPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----S
SEQ ID NO: 4	VMAALEAVLVNQVHNWDPVGGSNENLFLPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----E
SEQ ID NO: 6	VMAALEAVLVNQVHNWDPVGGSNENLFLPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----E
SEQ ID NO: 8	VMAALDEAVQINQVHNWDPVGGSNENLFLPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----A
SEQ ID NO: 10	VMEALKDAVEINQVHNWDPVGGSNENLFLPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----A
SEQ ID NO: 56	VMEALKDAVEINQVHNWDPVGGSNENLFLPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----A
SEQ ID NO: 57	VMSALQEAQVQINQVHNWDPVGGSNENLFLPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----S
SEQ ID NO: 58	VMSLSQATHAVMNCRDLLIGDNTNHFEPFLFKLFDQLLVIGLINDDELECLRLIHPQAFD-----
SEQ ID NO: 59	VISSLGEAVAHGVSHCRDPIGGNENLFLVPLLELDCALLVIGEFDDDDLLKSLLLIDPATF-----D
SEQ ID NO: 60	TIQMLTEAVKEGSLHARDPVGGTTEFLFVPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----GE
SEQ ID NO: 61	TIQMLTEAVKEGSLHARDPVGGTTEFLFVPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----GE
SEQ ID NO: 62	TIQMLTEAVKEGSLHARDPVGGTTEFLFVPLIKLVDRLLLVGMWRDEDEVEKLLIMTNPETWDP-----GE

**FIGURE 1M**

SEQ ID NO: 2	FDKEGDEHRKGLLHMKMAEGAKLQMCYLLQHLNDIQLRHRVEATIAFAHDFVGLQTDQLRRYTEIKQ--SDLP SAVA AAKKTREFRCP
SEQ ID NO: 128	FDKEGDEHRKGLLHMKMAEGAKLQMCYLLQHLNDIQLRHRVEAI AFAHDFVGLQTDQLRRYTEIKQ--SDLP SAVA AAKKTREFRCP
SEQ ID NO: 130	FDKEGDEHRKGLLHMKMAEGAKLQMCYLLQHLNDIQLRHRVEAI AFAHDFVGLQTDQLRRYTEIKQ--SDLP SAVA AAKKTREFRCP
SEQ ID NO: 144	FDKGGDEHRKGLLHMKMAEGAKLQMCYLLQHLNDIQLRHRVEAI AFAHDFVGLQTDQLRRYTEIKQ--SDLP SAVA AAKKTREFRCP
SEQ ID NO: 146	FDKEGDEHRKGLLHMKMAEGAKLQMCYLLQHLNDIQLRHRVEAI AFAHDFVGLQTDQLRRYTEIKQ--SDLP SAVA AAKKTREFRCP
SEQ ID NO: 4	FQKDGPDHRKGLLHMKMAEGAKLQMCYLLHLLCDIQLRHRVESIIISFSYQFVNDIQIDQLRRYNEIKQ--SDLP SAVA AAKKTREFRCP
SEQ ID NO: 6	FQKDGPDHRKGLLHMKMAEGAKLQMCYLLHLLCDIQLRHRVESIIISFSYQFVNDIQIDQLRRYNEIKQ--SDLP SAVA AAKKTREFRCP
SEQ ID NO: 8	FEKDGDEHRKGLLTMKMAEGAKLQMCYLLHLLYDIQLRHRVEAIISFSVDFVGLQSDQLRRYIEIKQ--SDLP SAVA AAKKTREFRCP
SEQ ID NO: 10	FEREGDEHRKGLLTMKMAEGAKLQMCYLLHLLYDTQLRHRVESIIAFSHDFVGLQTDQLRRYIEIKQ--SDLP SAVA AAKKTREFRCP
SEQ ID NO: 56	FEREGDEHRKGLLTMKMAEGAKLQMCYLLHLLYDTQLRHRVESIIAFSHDFVGLQTDQLRRYIEIKQ--SDLP SAVA AAKKTREFRCP
SEQ ID NO: 57	FEKEGDEHRKGLLTMKMAEGAKLQMCYLLHLLYDVQLRHRVESIIAFAHNYVGLQDQCKRYMEIKQ--SDLP SAVA AAKKTREFRCP
SEQ ID NO: 58	-ENYETGTTQKGLTQLELAEPVKIQLSILDHLCDIQLRRIEISLVAFTGEGVGLQSDQCKRYMEIKQ--TDMPPAEAAAKKTREFRCP
SEQ ID NO: 59	ETYYKGVSETVGMLOMHLDEPVKIAMCFLLOHLCDISQLRHRVESIIISFSDDFVACIQDNQFRYNEVMQALNMSAALTARKTKBFRSP
SEQ ID NO: 60	EEAKGKRPKEGILLQMKLPEPVKIQMCLLLOYLCDQCVRHRIEAIIVAFSDDDFVAKIQDNQFRYNEVMQALNMSAALTARKTKBFRSP
SEQ ID NO: 61	EEAKGKRPKEGILLQMKLPEPVKIQMCLLLOYLCDQCVRHRIEAIIVAFSDDDFVAKIQDNQFRYNEVMQALNMSAALTARKTKBFRSP
SEQ ID NO: 62	EEAKGKRPKEGILLQMKLPEPVKIQMCLLLOYLCDQCVRHRIEAIIVAFSDDDFVAKIQDNQFRYNEVMQALNMSAALTARKTKBFRSP

SEQ ID NO: 2	EQMNVILSFKHLEE-----EDKENCPCGGEELIARMNEFHDITLMAHVSILHALQEPDAAENQEP--AKPGAFGKLYNIINTVKELEEE
SEQ ID NO: 128	EQMNAIILSFKHLEE-----EDKENCPCGGEELIARMNEFHDITLMAHVSILHALQEPDAAENQEP--AKPGAFGKLYNIINTVKELEEE
SEQ ID NO: 130	EQMNAIILSFKHLEE-----EDKENCPCGGEELIARMNEFHDITLMAHVSILHALQEPDAAENQEP--AKPGAFGKLYNIINTVKELEEE
SEQ ID NO: 144	EQMNAIILSFKHLEE-----EDKENCPCGGEELIARMNEFHDITLMAHVSILHALQEPDAAENQEP--AKPGAFGKLYNIINTVKELEEE
SEQ ID NO: 146	EQMNAIILSFKHLEE-----EDKENCPCGGEELIARMNEFHDITLMAHVSILHALQEPDAAENQEP--AKPGAFGKLYNIINTVKELEEE
SEQ ID NO: 4	EQMNAIILGFKNLDI-----DDKENCILIGDELRRMNEFNERLMKQISLVALQESDDKSLNNLNKEGKIQQFYNFINAVKDEANE
SEQ ID NO: 6	EQMNAIILGFKNLDI-----DDKENCILIGDELRRMNEFNEKLMKQISLVALQESDDKSLNNLNKEGKIQQFYNFINAVKDEANE
SEQ ID NO: 8	EQMNAIILGFKNLEE-----GDIENCPCGDELRRINSFHEKLMHKVSLALQEPSEEEASAEVKKPNALNRLYNFNAVKLELEET
SEQ ID NO: 10	EQMNQILCFKNLEP-----DDQDNCTCGLELRGLGDFHDSLMQKVSINALQEPDGVGEGTAIEEVKTGPTITKIYNFINTVKELEEG
SEQ ID NO: 56	EQMNQILCFKNLEP-----DDQDNCTCGLELRGLGDFHDSLMQKVSINALQEPDGVGEGTAIEEVKTGPTITKIYNFINTVKELEEG
SEQ ID NO: 57	EQMNAIILGYKNLEE-----DDLNASCGPELNRNLIIEFHEKLMGKVSINALQEPPEPEADKLEGRPGAMKLYNFINAVKLELEED
SEQ ID NO: 58	EQMFRLLMCKVKEERDPELMEEDADVQCPMAEGILQQQLRDFCELLVGKIGNVKEGSDDDQLALIESEEG----SWVDSFARIVVVP
SEQ ID NO: 59	EQMRMLLHFQDG-----DDGMCPCREDLRSVLLEFSTLAKHCQVHETQE--EKSTDSRGVIR-----RFLSWLSGSR--KDA
SEQ ID NO: 60	EQINMLLNFKD-----DKSECPCEPTRDQLDDFHEDLMTHCGFELDEDEGSLDGSNDLTIRG-----RLLSLVEKVTYLLKKK
SEQ ID NO: 61	EQINMLLNFKD-----DKSECPCEPTRDQLDDFHEDLMTHCGFELDEDEGSLDGSNDLTIRG-----RLLSLVEKVTYLLKKK
SEQ ID NO: 62	EQINMLLNFKD-----DKSECPCEPTRDQLDDFHEDLMTHCGFELDEDEGSLDGSNDLTIRG-----RLLSLVEKVTYLLKKK

**FIGURE 1N**

SEQ ID NO: 2	AKAIEPPKKTPEEKFRKVL	QIAITVNWAEESQIETPKLV	REMFSLVRQYDA	VGELIRALEKTYVINAKTKLD	VAEMWVGLSQIRALLPV	
SEQ ID NO: 128	AKAIEPPKKTPEEKFRKVL	QIAITVNWAEESQIETPKLV	REMFSLVRQYDA	VGELIRALEKTYVINAKTKLD	VAEMWVGLSQIRALLPV	
SEQ ID NO: 130	AKAIEPPKKTPEEKFRKVL	QIAITVNWAEESQIETPKLV	REMFSLVRQYDA	VGELIRALEKTYVINAKTKLD	VAGMWVGLSQIRALLPV	
SEQ ID NO: 144	AKAIEPPKKTPEEKFRKVL	QIAITVNWAEESQIETPKLV	REMFSLVRQYDA	VGELIRALEKTYVINAKTKLD	VAEMWVGLSQIRALLPV	
SEQ ID NO: 146	AKAIEPPKKTPEEKFRKVL	QIAITVNWAEESQIETPKLV	REMFSLVRQYDA	VGELIRALEKTYVINAKTKLD	VAEMWVGLSQIRALLPV	
SEQ ID NO: 4	DGLN - EHEKKIPEE	IFRKVL	ISTIVSWAETQIETPKLV	REMFSLVRQYDS	VGELIRALEKTYVINAKTKED	VAQMWVGLSQIRALLPV
SEQ ID NO: 6	NGLN - EHEKKIPEE	IFRKVL	ISTIVSWAETQIETPKLV	REMFSLVRQYDS	VGELIRALEKTYVINAKTKED	VAQMWVGLSQIRALLPV
SEQ ID NO: 8	PQIEEPEKKTPEE	IFRKVL	ISTIVSWAETQIETPKLV	REMFSLVRQYDT	VGELIRALGKTYVINAKTKDDA	ALMWVGLSQIRALLPV
SEQ ID NO: 10	PKEVEEPEKKTPEE	IFRKVL	ISTIVSWAETQIETPKLV	REMFSLVRQYDT	VGELIRALEKTYVINAKTKDDA	ALMWVGLSQIRALLPV
SEQ ID NO: 56	PKEVEEPEKKTPEE	IFRKVL	ISTIVSWAETQIETPKLV	REMFSLVRQYDT	VGELIRALEKTYVINAKTKDDA	ALMWVGLSQIRALLPV
SEQ ID NO: 57	PKEVEEPEKKTPEE	IFRKVL	ISTIVSWAETQIETPKLV	REMFSLVRQYDT	VGELIRALEKTYVINAKTKDDA	ALMWVGLSQIRALLPV
SEQ ID NO: 58	PLEEGMEMQKKG	TQNFREI	IVTMLREWAQADF	IESKSLIRNNFRLLRQYSG	IREIRAMSQTYVFHERNEK	VDVDFLVYLIQIRELLTV
SEQ ID NO: 59	SPAGAILQEFSS	DSLHLISNTMIKWA	EKKHIEDPTLV	REMFNLLHRQYD	GVGELCSALQKSYVSSNQ	RDDIVHLLTSLGQIRSLTIV
SEQ ID NO: 60	QAEKPVASDS	RKCSLQQLISETMVR	WAQESVIEDPEL	VRAMFVLLHRQYD	GIGGLVRALPKTYTING	SVEDTINLLASLGQIRSLTIV
SEQ ID NO: 61	QTEKPVESDS	RKCSLQQLISETMVR	WAQESVIEDPEL	VRAMFVLLHRQYD	GIGGLVRALPKTYTING	SVEDTINLLASLGQIRSLTIV
SEQ ID NO: 62	QAEKPVESDS	RKCSLQQLISETMVR	WAQESVIEDPEL	VRAMFVLLHRQYD	GIGGLVRALPKTYTING	SVEDTINLLASLGQIRSLTIV
SEQ ID NO: 2	QMSQEEEEELMRKRLWKL	VNNHTFFQHPDLIRVLR	VHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 128	QMSQEEEEELMRKRLWKL	VNNHTFFQHPDLIRVLR	VHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 130	QMSQEEEEELMRKRLWKL	VNNHTFFQHPDLIRVLR	VHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 144	QMSQEEEEELMRKRLWKL	VNNHTFFQHPDLIRVLR	VHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 146	QMSQEEEEELMRKRLWKL	VNNHTFFQHPDLIRVLR	VHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 4	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 6	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 8	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 10	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 56	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 57	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 58	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 59	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 60	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 61	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 62	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 2	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 128	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 130	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 144	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 146	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 4	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 6	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 8	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 10	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 56	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 57	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 58	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 59	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 60	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 61	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----
SEQ ID NO: 62	QMSQEEEEELMRERLWKL	VNNHTFFQHPDLIRVLR	VMHENVMAVMNNTL	GRRQAQAS	---DAQPSSQPVAED	----



**FIGURE 10**

SEQ ID NO:2	-----NKEKDTSHEMVAVACCRFLCYFCRTGRQKQKAMFDHDFDFFLENSNILLSRPSLRGSTPLDVAYSSLMNTTELALALREHYLEK
SEQ ID NO:128	-----SKEKDTSHEMVAVACCRFLCYFCRTGRQKQKAMFDHDFDFFLENSNILLSRPSLRGSTPLDVAYSSLMNTTELALALREHYLEK
SEQ ID NO:130	-----NKEKDTSHEMVAVACCRFLCYFCRTGRQKQKAMFDHDFDFFLENSNILLSRPSLRGSTPLDVAYSSLMNTTELALALREHYLEK
SEQ ID NO:144	-----NKEKDTSHEMVAVACCRFLCYFCRTGRQKQKAMFDHDFDFFLENSNILLSRPSLRGSTPLDVAYSSLMNTTELALALREHYLEK
SEQ ID NO:146	-----NKEKDTSHEMVAVACCRFLCYFCRTGRQKQKAMFDHDFDFFLENSNILLSRPSLRGSTPLDVAYSSLMNTTELALALREHYLEK
SEQ ID NO:4	-----PKEKDTSHEMVAVACCRFLCYFCRTSRQKQKAMFDHDFDFFLENSNILLSRPSLRGSTPLDVAYSSLMNTTELALALREHYLEK
SEQ ID NO:6	-----PKEKDTSHEMVAVACCRFLCYFCRTSRQKQKAMFDHDFDFFLENSNILLSRPSLRGSTPLDVAYSSLMNTTELALALREHYLEK
SEQ ID NO:8	-----AKEKDTSHEMVAVACCRFLCYFCRTSRQKQKAMFDHDFDFFLENSNILLSRPSLRGSTPLDVAYSSLMNTTELALALREHYLEK
SEQ ID NO:10	-----SKEKDTSHEMVAVACCRFLCYFCRTGRQKQKAMFDHDFDFFLDNANILLARPSLRGSTPLDVAYSSLMNTTELALALREHYLEK
SEQ ID NO:56	-----SKEKDTSHEMVAVACCRFLCYFCRTGRQKQKAMFDHDFDFFLDNANILLARPSLRGSTPLDVAYSSLMNTTELALALREHYLEK
SEQ ID NO:57	-----PKEKDTSHQMVAVACCRFLCYFCRTGRMNQKAMFDHDFDFFLENSNILLSRPSLRGSTPLDVAYSSLMNTTELALALREHYLEK
SEQ ID NO:58	-----APIKDASEMVAACSRFLCYFCRTSRQKQKAMFEHLFLLDNATMLLARPSLRGSTPLDVAYSSFMNDNNELALALKEEELDK
SEQ ID NO:59	LARRARMCHSKDRFARALAGCCRFLLCYFCRTSRQKQKAMFDHDFDFFLLYLLDGHGFIGLSYPSLRGSTPLDVAAAASLMDNNELALALREHYLEK
SEQ ID NO:60	-----SKEITFPKMVANCCRFLLCYFCRTSRQKQKAMFDHLSYLLSENSVGLASPMARGSTPLDVAAAASVMDNNELALALREPDLEK
SEQ ID NO:61	-----SKEITFPKMVANCCRFLLCYFCRTSRQKQKAMFDHLSYLLSENSVGLASPMARGSTPLDVAAAASVMDNNELALALREPDLEK
SEQ ID NO:62	-----SKEITFPKMVANCCRFLLCYFCRTSRQKQKAMFDHLSYLLSENSVGLASPMARGSTPLDVAAAASVMDNNELALALREPDLEK
SEQ ID NO:2	IAY-YLSRCGLQSNSELVEKGYPDIGWDPVVEGERYLDFLRFFCVWNGESVEENANLVIRLLIRRPECGLPALRGEG-EGLLKAIVDANKM
SEQ ID NO:128	IAY-YLSRCGLQSNSELVEKGYPDIGWDPVVEGERYLDFLRFFCVWNGESVEENANLVIRLLIRRPECGLPALRGEG-EGLLKAIVDANKM
SEQ ID NO:130	IAY-YLSRCGLQSNSELVEKGYPDIGWDPVVEGERYLDFLRFFCVWNGESVEENANLVIRLLIRRPECGLPALRGEG-EGLLKAIVDANKM
SEQ ID NO:144	IAY-YLSRCGLQSNSELVEKGYPDIGWDPVVEGERYLDFLRFFCVWNGESVEENANLVIRLLIRRPECGLPALRGEG-EGLLKAIVDANKM
SEQ ID NO:146	IAY-YLSRCGLQSNSELVEKGYPDIGWDPVVEGERYLDFLRFFCVWNGESVEENANLVIRLLIRRPECGLPALRGEG-EGLLKAIVDANKM
SEQ ID NO:4	IAI-YLSRCGLQSNSELVEKGYPDIGWDPVVEGERYLDFLRFFCVWNGESVEENANLVIRLLIRRPECGLPALRGEG-EGLLRAIIVDANKM
SEQ ID NO:6	IAI-YLSRCGLQSNSELVEKGYPDIGWDPVVEGERYLDFLRFFCVWNGESVEENANLVIRLLIRRPECGLPALRGEG-EGLLRAIIVDANKM
SEQ ID NO:8	IAI-YLSRCGLQSNSELVEKGYPDIGWDPVVEGERYLDFLRFFCVWNGESVEENANLVIRLLIRRPECGLPALRGEG-EGLLRAIIVDANKM
SEQ ID NO:10	IAY-YLSRCGLQSNSELVEKGYPDIGWDPVVEGERYLDFLRFFCVWNGESVEENANLVIRLLIRRPECGLPALRGEG-EGLFRAIVEANRM
SEQ ID NO:56	IAY-YLSRCGLQSNSELVEKGYPDIGWDPVVEGERYLDFLRFFCVWNGESVEENANLVIRLLIRRPECGLPALRGEG-EGLFRAIVEANRM
SEQ ID NO:57	IAI-YLSRCGLQSNSELVEKGYPDIGWDPVVEGERYLDFLRFFCVWNGESVEENANLVIRLLIRRPECGLPALRGEG-EGLLKAIVDANKM
SEQ ID NO:58	VAV-YLSRCGLQSNSELITKGYDDIGWDPVVEGERYIDFLRFFCVWNGESVEENANLVIRLLIRRPECGLPALRGEG-QGLFSAFKEAIAL
SEQ ID NO:59	VIT-FLSRGCVQDNARLRAMGNPYLDGTPLDGERYLDLDFMRHVAWVNGETVEENANLVIRMLIRHPECGLPALRGEG-KGLLAMEEAIDL
SEQ ID NO:60	VVARYLAGCGLQSCQMLVSKGYDDIGWNPVEGERYLDLRFVAVFCNGESVEENANVVVRLIRRPECFPALRGEGGNGLLAMEEAIKI
SEQ ID NO:61	VVR-YLAGCGLQSCQMLVSKGYDDIGWNPVEGERYLDLRFVAVFCNGESVEENANVVVRLIRRPECFPALRGEGGNGLLAMEEAIKI
SEQ ID NO:62	VVR-YLAGCGLQSCQMLVSKGYDDIGWNPVEGERYLDLRFVAVFCNGESVEENANVVVRLIRRPECFPALRGEGGNGLLAMEEAIKI

**FIGURE 1P**

SEQ ID NO: 2	SERADRRKRLRE-----MEQ--EGDVNFSPHPLPESEDE-EDYIDTGAAILNFYCTLVLLGRCAPDAGVIALGKNESLRARAILRSLVP
SEQ ID NO: 128	SERADRRKRLRE-----MEQ--EGDVNFSPHPLPESEDE-EDYIDTGAAILNFYCTLVLLGRCAPDAGVIALGKNESLRARAILRSLVP
SEQ ID NO: 130	SERADRRKRLRE-----MEQ--EGDVNFSPHPLPESEDE-EDYIDTGAAILNFYCTLVLLGRCAPDAGVIALGKNESLRARAILRSLVP
SEQ ID NO: 144	SERADRRKRLRE-----MEQ--EGDVNFSPHPLPESEDE-EDYIDTGAAILNFYCTLVLLGRCAPDAGVIALGKNESLRARAILRSLVP
SEQ ID NO: 146	SERADRRKRLRE-----MEQ--EGDVNFSPHPLPESEDE-EDYIDTGAAILNFYCTLVLLGRCAPDAGVIALGKNESLRARAILRSLVP
SEQ ID NO: 4	SERITERRKFLF-----ES-GNQENIQLDHPLPESEDD-EDYIDTGAAILNFYCTLVLLGRYAPDSSVIALGKNESLRARAILRSLVP
SEQ ID NO: 6	SERIAERRKFLF-----ES-GNQENIQLDHPLPESEDD-EDYIDTGAAILNFYCTLVLLGRCAPDSSVIALGKNESLRARAILRSLVP
SEQ ID NO: 8	SERADRRKVMQD-----EPEGTTVMVHFHPLPESEDD-EDYIDTGAAILAFYCTLVLLGRCAPDSSVIAQGNESLRARAILRSLVP
SEQ ID NO: 10	SERISDRCKMQD-----EAEGTIAGLNFTHPLPEGEED-EDYIDTGAAILNFYCTLVLLGRCAPDASVIEQGNESLRARAILRSLVP
SEQ ID NO: 56	SERISDRCKMQD-----EAEGTIAGLNFTHPLPEGEED-EDYIDTGAAILNFYCTLVLLGRCAPDAAVIEQGNESLRARAILRSLVP
SEQ ID NO: 57	SERISERRKMQD-----EAEGTITGLNFSHPHPLPEGDDD-EDYIDTGAAILCFYCTLVLLGRCAPDAAVIEQGNESLRARAILRSLVP
SEQ ID NO: 58	SEDIRLLENDSP-----SLLSSGLLGENFTYPSKDAEGEDYIDLGAATLDFYSSLVLLAKCAPDMAIQAGKGSRLARAILRSLIS
SEQ ID NO: 59	SETAEEGYLISAPTWAISEEDGEVRPIDASGQDEEGDED-EDDVDTGGAAILTFYATLIDLLGRCAPDENRLSQGTETEPQIRAILQSLVP
SEQ ID NO: 60	AEDPSR-----DGPSPTSGSSKTLDEIEEEE-DDTTHMGNAIMTFYAAALIDLLGRCAPEMHLIHAGKGEAIRIRSILRSLIP
SEQ ID NO: 61	AEDPSR-----DGPSPTSGSSKTLDEIEEEE-DDTTHMGNAIMTFYAAALIDLLGRCAPEMHLIHAGKGEAIRIRSILRSLIP
SEQ ID NO: 62	AEDPSR-----DGPSPNSGSSKTLDEIEEEE-DDTTHMGNAIMTFYSAALIDLLGRCAPEMHLIHAGKGEAIRIRSILRSLIP
SEQ ID NO: 2	LEDLQGVLSLRFITLNPAA-----GEERP KSDMP SGLIPGHKQSVGLFLGRVYGIETQELFYKLLLEAFPLDLRAATMLDRNDGCES
SEQ ID NO: 128	LEDLQGVLSLRFITLNPAA-----GEERP KSDMP SGLIPGHKQSVGLFLGRVYGIETQELFYKLLLEAFPLDLRAATMLDRNDGCES
SEQ ID NO: 130	LEDLQGVLSLRFITLNPAA-----GEERP KSDMP SGLIPGHKQSVGLFLGRVYGIETQELFYKLLLEAFPLDLRAATMLDRNDGCES
SEQ ID NO: 144	LEDLQGVLSLRFITLNPAA-----GEERP KSDMP SGLIPGHKQSVGLFLGRVYGIETQELFYKLLLEAFPLDLRAATMLDRNDGCES
SEQ ID NO: 146	LEDLQGVLSLRFITLNPAA-----GEERP KSDMP SGLIPGHKQSVGLFLGRVYGIETQELFYKLLLEAFPLDLRAATMLDRNDGCES
SEQ ID NO: 4	LEDLHGVLSLRFITLQNPAA-----GQDRPKSDMP SGLIPGHKQSVLFLGRVYGIEMQELFFTLLEAFPLDLRTATMLDRNDGLES
SEQ ID NO: 6	LEDLHGVLSLRFITLQNPAA-----GQDRPKSDMP SGLIPGHKQSVLFLGRVYGIEMQELFFTLLEAFPLDLRTATMLDRNDGLES
SEQ ID NO: 8	LEDLQGVLSLKFITLQNPAA-----GEERP KSDMP SGLIPGHKQSVLFLGRVYGIETQELFFRLLEAFPLDLRAATMLDRNDGCES
SEQ ID NO: 10	LEDLQGVLSLKFITLSQTAP-----GEEKPKSDMP SGLLPNNKQSVLFLGRVYGIEAQDLFYRLLEDAFLDLRTATILDKSDGSES
SEQ ID NO: 56	LEDLQGVLSLKFITLSQTAP-----GEEKPKSDMP SGLLPNNKQSVLFLGRVYGIEAQDLFYRLLEDAFLDLRTATILDKSDGSES
SEQ ID NO: 57	LEDLQGVLSLKFITLTPAL-----GEDRPKSDMP SGLVPNNKQSVLFLGRVYGIETQELFYRLLEDAFLDLRAATMLDRSDGSES
SEQ ID NO: 58	LDDLQGVLSLKFITLTPAL-----SIEDTGPLPGLLNNHKSGLVLLFLDRVYGIQDQDMLFHVLEQSFPLDLRAATMLDRSDGSES
SEQ ID NO: 59	LDDLGVTLNLKFILPSQKIYEKKDDGACKPLGADLKG-LTPVHKAMLLFLERVYGVGNQELFFELLEVGFLPDRLRAATMLDTPTTTDDH
SEQ ID NO: 60	LGDLVGVISIAFQMPTIAK-----DGKVVPEPDM SAGFCPDHKAAMVFLDRVYGIEVQDFLLHLLLEVGFPLDLRAAASLDTAALSAT
SEQ ID NO: 61	LGDLVGVISIAFQMPTIAK-----DGNVVEPDM SAGFCPDHKAAMVFLDRVYGIEVQDFLLHLLLEVGFPLDLRAAASLDTAALSAT
SEQ ID NO: 62	LGDLVGVISIAFQMPTIAK-----DGNVVEPDM SAGFCPDHKAAMVFLDRVYGIEVQDFLLHLLLEVGFPLDLRAAASLDTAALSAT

**FIGURE 1Q**

SEQ ID NO: 2	DMALSMNRYIGNSILPLLIKHAYFYNEAENYASLLDATTHTVYRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS
SEQ ID NO: 128	DMALSMNRYIGNSILPLLIKHAYFYNEAENYASLLDATTHTVYRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS
SEQ ID NO: 130	DMALSMNRYIGNSILPLLIKHAYFYNEAENYASLLDATTHTVYRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS
SEQ ID NO: 144	DMALSMNRYIGNSILPLLIKHAYFYNEAENYASLLDATTHTVYRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS
SEQ ID NO: 146	DMALSMNRYIGNSILPLLIKHAYFYNEAENYASLLDATTHTVYRLSKNRMLTKGQREAVSDFLVALTSAMQPSMLLKLLRKLTVDVSKLS
SEQ ID NO: 4	DMALAMNRYIGKSVLPLLIHGSKFYSESDNYANLLDATTHTVYRLSKNRMLTKGQREAVSDFLVALTSQMQPSMLLKLLRKLTVDVSNLS
SEQ ID NO: 6	DMALAMNRYIGKSVLPLLIHGSKFYSESDNYANLLDATTHTVYRLSKNRMLTKGQREAVSDFLVALTSQMQPSMLLKLLRKLTVDVSNLS
SEQ ID NO: 8	DMALAMNRYIGNSILPLLIHGSKFYNEADNYASLLDATTHTVYRLSKNRMLTKGQREAVSDFLVALTSQMQPSMLLKLLRKLTVDVSKLT
SEQ ID NO: 10	DMALAMNRYIGNSILPLLIHGSKFYNEADNYASLLDATTHTVYRLSKNRMLTKGQREAVSDFLVALTSQMQPSMLLKLLRKLTVDVSKLS
SEQ ID NO: 56	DMALAMNRYIGNSILPLLIHGSKFYNEADNYASLLDATTHTVYRLSKNRMLTKGQREAVSDFLVALTSQMQPSMLLKLLRKLTVDVSKLS
SEQ ID NO: 57	DMALAMNRYIGNSILPLLIHGSKFYNEADNYASLLDATTHTVYRLSKNRMLTKGQREAVSDFLVALTSQMQPSMLLKLLRKLTVDVSKLS
SEQ ID NO: 58	DTALALNRYL CNSVLPLLTNHSFFADAEHHSALLDATTHTVYRMNRKSLTKNQORDAVSDFLVAITRELPAMMIKLLKKVITDILTWN
SEQ ID NO: 59	DMALALNRYL CNSVLPLLTNHSFFADAEHHSALLDATTHTVYRLSKRSLTRGQRTFVADFLVALTRSLKPSMMQRLRLRKLINDVPVLA
SEQ ID NO: 60	DMALALNRYLCTAVLPLLTRCARLFACTEHHASLIDSLHTVYRLSKGCSLTKAQRDSIEVCLLSICGQLRPSMMQHLLRRLVDFVPLLN
SEQ ID NO: 61	DMALALNRYLCTAVLPLLTRCAPLFACTEHHASLIDSLHTVYRLSKGCSLTKAQRDSIEVCLLSICGQLRPSMMQHLLRRLVDFVPLLN
SEQ ID NO: 62	DMALALNRYLCTAVLPLLTRCAPLFACTEHHASLIDSLHTVYRLSKGCSLTKAQRDSIEVCLLSICGQLRPSMMQHLLRRLVDFVPLLN
SEQ ID NO: 2	EY-TTVALRLLTLHYERC AKYYGSTGAG-QGAFGASSDEEKRLTMMLFSSIFDLSLKM DYEP ELFGKALPCLIAIGCALPPDYTL SKNYD
SEQ ID NO: 128	EY-TTVALRLLTLHYERC AKYYGSTGAG-QGAFGASSDEEKRLTMMLFSSIFDLSLKM DYEP ELFGKALPCLIAIGCALPPDYTL SKNYD
SEQ ID NO: 130	EY-TTVALRLLTLHYERC AKYYGSTGAG-QGAFGASSDEEKRLTMMLFSSIFDLSLKM DYEP ELFGKALPCLIAIGCALPPDYTL SKNYD
SEQ ID NO: 144	EY-TTVALRLLTLHYERC AKYYGSTGAG-QGAFGASSDEEKRLTMMLFSSIFDLSLKM DYEP ELFGKALPCLIAIGCALPPDYTL SKNYD
SEQ ID NO: 146	EY-TTVALRLLTLHYERC AKYYGSTGAG-QGAFGASSDEEKRLTMMLFSSIFDLSLKM DYEP ELFGKALPCLIAIGCALPPDYTL SKNYD
SEQ ID NO: 4	EY-TTVALRLLTLHYDRCAKYYGSTGG--QGIYGASSDEEKRLTMMLFSSIFDLSLKM DYEP ELFGKALPCLIAIGCALPPDYTL SKNHD
SEQ ID NO: 6	EY-TTVALRLLTLHYDRCAKYYGSTGG--QGIYGASSDEEKRLTMMLFSSIFDLSLKM DYEP ELFGKALPCLIAIGCALPPDYTL SKNHD
SEQ ID NO: 8	EY-TTVALRLLTLHYDRCAKYYGSTGG--QGIYGASSDEEKRLTMMLFSSIFDLSLKM DYEP ELFGKALPCLIAIGCALPPDYTL SKNHD
SEQ ID NO: 10	EY-TTVALRLLTLHFDRCAKYYGSTQG--QGSYGASSDEEKRLTMMLFSSIFDLSLKM DYEP ELFGKALPCLIAIGCALPPDYTL SKNHD
SEQ ID NO: 56	EY-TTVALRLLTLHFDRCAKYYGSTQG--QGSYGASSDEEKRLTMMLFSSIFDLSLKM DYEP ELFGKALPCLIAIGCALPPDYTL SKNHD
SEQ ID NO: 57	EY-TTVALRLLTLHYERC AKYYGTTGGGQASQFGASSDEEKRLTMMLFSSIFDLSLKM DYEP ELFGKALPCLIAIGCALPPDYTL SKNSD
SEQ ID NO: 58	DMNVLPLRLTLHYERC AKYYGSGNH-----YGVASEQEKRLSMLLFDATTFTIGSRPYDPELFGKALPCLIAIGCALPPDYTL TSGLE
SEQ ID NO: 59	EY-SYVALKILQLHYERC VSYGSGNG--WGSYGAADEEKRLTMMLFTGLFDALAEKDEYDEELFDRLPCLTAIGSALPPDYMESNY--
SEQ ID NO: 60	EH-AKMPLKLLTNHYERCWKYYCIPGG--WGNFGAASEEELHLSRKLFWGIFDALISQKKYEQELFKLALPCLSAVAGALPPDYMESNY--
SEQ ID NO: 61	EH-AKMPLKLLTNHYERCWKYYCIPGG--WGNFGAASEEELHLSRKLFWGIFDALISQKKYEQELFKLALPCLSAVAGALPPDYMESNY--
SEQ ID NO: 62	EH-AKMPLKLLTNHYERCWKYYCIPGG--WGNFGAASEEELHLSRKLFWGIFDALISQKKYEQELFKLALPCLSAVAGALPPDYMESNY--

**FIGURE 1R**

SEQ ID NO:2	DEFYGEQAAGDLDNPQYDPPQINTSSVALNNDLNTIVQKFSEHYHDAWASRKIENGWVYGEQWSDSQKTHPRLKPYNNMLNDY-----EK
SEQ ID NO:128	DEFYGEQAAGDLDNPQYDPPQINTSSVALNNDLNTIVQKFSEHYHDAWASRKIENGWVYGEQWSDSQKTHPRLKPYNNMLNDY-----EK
SEQ ID NO:130	DEFYGEQAAGDLDNPQYDPPQINTSSVALNNDLNTIVQKFSEHYHDAWASRKIENGWVYGEQWSDSQKTHPRLKPYNNMLNDY-----EK
SEQ ID NO:144	GEFYGEQAAGDLDNPQYDPPQINTSSVALNNDLNTIVQKFSEHYHDAWASRKIENGWVYGEQWSDSQKTHPRLKPYNNMLNDY-----EK
SEQ ID NO:146	DEFYGEQAAGDLDNPQYDPPQINTSSVALNNDLNTIVQKFSEHYHDAWASRKIENGWVYGEQWSDSQKTHPRLKPYNNMLNDY-----EK
SEQ ID NO:4	DEWYGSKQNIQGPSDGPYPNPQINTSSVALNNDLNTIVQKFSEHYHDAWASRKIENGWVYGEQWSDSQKTHPRLKPYNNMLSEY-----EK
SEQ ID NO:6	DEWYGSKQNIQGPSDGPYPNPQINTSSVALNNDLNTIVQKFSEHYHDAWASRKIENGWVYGEQWSDSQKTHPRLKPYNNMLSEY-----EK
SEQ ID NO:8	DELYGARDSQAGPSDGPYPNPQINTSSVALNNDLNTIVQKFSEHYHDAWASRKIENGWVYGEQWSDSQKTHPRLKPYNNMLDYVEPSIER
SEQ ID NO:10	EDYGRQMG--APDQPYMPNPIDTNNVHLNDLNSLVQKFSEHYHDAWASRRLEGGWYGDIRSDNDRKHPRKPYNNMLSEY-----ER
SEQ ID NO:56	EDYGRQMG--APDQPYMPNPIDTNNVHLNDLNSLVQKFSEHYHDAWASRRLEGGWYGDIRSDNDRKHPRKPYNNMLSEY-----ER
SEQ ID NO:57	DDLKGKPTGG-GPDQPHYNPQIDTAVQLTNDLNLQIVQKFSEHYHDAWASRKIENGWVYGDQWSDANKTHPRLKPYNTLSEY-----ER
SEQ ID NO:58	DVRNKRREE-----EGAWIPRTVDVSRCEINRDLEKMTFLFAEHFHDWSAARKLEKGVHGDLYSRANFTHPRLKPFALLKOF-----EK
SEQ ID NO:59	DESYVRESC--FDADGIYQPKPVDNSKNVLLNESLLSFSDRAEHLHDSWALAMFDNGWTHGEAENSAMKESCMLRPYKTLTK-----EK
SEQ ID NO:60	VSMMEKQSS--MDSEGNFNPQVDTSNITPEKLEYFINKYAEHSHDKWSMDKLANGWYGEIYSDSSKIQLPMKPYKLLSEK-----EK
SEQ ID NO:61	VSMMEKQSS--MDSEGNFNPQVDTSNITPEKLEYFINKYAEHSHDKWSMDKLANGWYGEIYSDSSKIQLPMKPYKLLSEK-----EK
SEQ ID NO:62	VSMMEKQSS--MDSEGNFNPQVDTSNITPEKLEYFINKYAEHSHDKWSMDKLANGWYGEIYSDSSKVQPLMKPYKLLSEK-----EK
SEQ ID NO:2	ERYKEPVRESLKALLAIGWSVEHSEVDIPSNRRSSMGRQSKSGGRPPEIVT--DSATPFNYPNHPVDMTNLTLSREMQNMAERLADNAHD
SEQ ID NO:128	ERYKEPVRESLKALLAIGWSVEHSEVDIPSNRRSSMGRQSKSGGRPPEIVT--DSATPFNYPNHPVDMTNLTLSREMQNMAERLADNAHD
SEQ ID NO:130	ERYKEPVRESLKALLAIGWSVEHSEVDIPSNRRSSMGRQSKSGGRPPEIVT--DSATPFNYPNHPVDMTNLTLSREMQNMAERLADNAHD
SEQ ID NO:144	ERYKEPVRESLKALLAIGWSVEHSEVDIPSNRRSSMGRQSKSGGRPPEIVT--DSATPFNYPNHPVDMTNLTLSREMQNMAERLADNAHD
SEQ ID NO:146	ERYKEPVRESLKALLAIGWSVEHSEVDIPSNRRSSMGRQSKSGGRPPEIVT--DSATPFNYPNHPVDMTNLTLSREMQNMAERLADNAHD
SEQ ID NO:4	ELYKEPVRESLKALLAIGWSIEHSENDAPLNNRGSVRRQSK-----SN-----ENVTPFDYHPNPIDMTNLTLTREMQNMAERLAENSHD
SEQ ID NO:6	ELYKEPVRESLKALLAIGWSIEHSENDAPLNNRGSVRRQSK-----SN-----ENVTPFDYHPNPIDMTNLTLTREMQNMAERLAENSHD
SEQ ID NO:8	ERYKEPVRESLKALLAIGWTVHESEADVPLTSRGSIRRQSK-----PNAMV--DSSTPFNYPNHPIDMTNLTLTREMQNMAERLAENSHD
SEQ ID NO:10	ERYRDPVRECLKGLLAIGWTVHESEVEVPLNHRGSTRQSK-----PQINE-----GSPFNYPNHPVDMNSNLTLSREMQNMAERLAENSHD
SEQ ID NO:56	ERYRDPVRECLKGLLAIGWTVHESEVEVPLNHRGSTRQSK-----PQINEFQNEGSPFNYPNHPVDMNSNLTLSREMQNMAERLAENSHD
SEQ ID NO:57	ERYREPVRRESLKALLAHLWRIEHSRGDVLNHRGSMRRQSK-----PNLELQGTGSPFNYPNHPVDMTNLTLSREMQNMAERLAENSHD
SEQ ID NO:58	SFYKERCSECLKALMAWNYSFENMDRDAN--DRASAARTLSG-----TSISNFAKPIDLSMTLEKDMVNAAEKWAESHSL
SEQ ID NO:59	DSYREPVRRESLKALLAIGWTVHESEVEVPLNHRGSTRQSK-----ASLGA-----MESPHGYNPRPIDVSNITLTREMQTMAERLAENSHD
SEQ ID NO:60	EIYRWPIKESLKTMLAWGNRIERTREGDSMALYNRTTRISQ-----TSQVS-----IDAAHGYSPRADIMSNVTLSRDLHMAEMWMAENYHN
SEQ ID NO:61	EIYRWPIKESLKTMLAWGNRIERTREGDSMALYNRTTRISQ-----TSQVS-----VDAAHGYSPRADIMSNVTLSRDLHMAEMWMAENYHN
SEQ ID NO:62	EIYRWPIKESLKTMLARTMERTERTREGDSMALYNRTTRISQ-----TSQVS-----VDAAHGYSPRADIMSNVTLSRDLHMAEMWMAENYHN

**FIGURE 1S**

SEQ ID NO:2	IWAKKKEELVTNGGIIHPQVLPYDILLTDKEKKKDRERSQEFVKYLQYQGYKHLRPSKAPQ-SDTEQT-TTGVAIELRFAYSLSLEKLIQY
SEQ ID NO:128	IWAKKKEELVTNGGIIHPQVLPYDILLTDKEKKKDRERSQEFVKYLQYQGYKHLRPSKAPQ-SDTEQT-TTGVAIELRFAYSLSLEKLIQY
SEQ ID NO:130	IWAKKKEELVTNGGIIHPQVLPYDILLTDKEKKKDRERSQEFVKYLQYQGYKHLRPSKAPQ-SDTEQT-TTGVAIELRFAYSLSLEKLIQY
SEQ ID NO:144	IWAKKKEELVTNGGIIHPQVLPYDILLTDKEKKKDRERSQEFVKYLQYQGYKHLRPSKAPQ-SDTEQT-TTGVAIELRFAYSLSLEKLIQY
SEQ ID NO:146	IWAKKKEELVTNGGIIHPQVLPYDILLTDKEKKKDRERSQEFVKYLQYQGYKHLRPSKAPQ-SDTEQT-TTGVAIELRFAYSLSLEKLIQY
SEQ ID NO:4	IWAKKKEEVMLCGGGIHNQVLPYDILLTDKEKKKDRERSQEFVKYLQYQGYKHLRPNRNGGSPSEAEQ-AAAATGELRFSYLSLEKLIH
SEQ ID NO:6	IWAKKKEEVMLCGGGIHNQVLPYDILLTDKEKKKDRERSQEFVKYLQYQGYKHLRPNRNGGSPSEAEQ-AAAATGELRFSYLSLEKLIH
SEQ ID NO:8	IWAKKKEELITCGGIIHPQVLPYDILLTDKEKKKDRERSQEFVKYLQYQGYKHLRPSRTGGPSEAEQ-AAAATGELRFSYLSLEKLIQY
SEQ ID NO:10	IWAKKKEELNCGGVIHPQVLPYDILLTDKEKKKDRERSQEFVKYMQYQGYKHLKPSKGG-AVEEGG-ATQAAVELRFSYLSLEKLIQY
SEQ ID NO:56	IWAKKKEELNCGGVIHPQVLPYDILLTDKEKKKDRERSQEFVKYMQYQGYKHLKPSKGG-AVEEGG-ATQAAVELRFSYLSLEKLIQY
SEQ ID NO:57	IWAKKKEELDQCGGAIHAQVLPYDILLTDKEKKKDRERSQEFVKYLQYQGLKHLKPSRG--QTEEPG-MSTAIELRFAYSLSLEKLIQY
SEQ ID NO:58	IWAKKVMNDLNTKGGFMP IPLVPWDLITDERRKDRFRASEILKFLQYGHYVNCQDEQSQNDRLKSEGERTSVEKRFAYNLLLEKLIH
SEQ ID NO:59	VWAKTKLEMLRGSGGCHQVLPFDILLTDSEKKKORDMAQALLKFLQVWNGYRLQRHSL--MDADGIIRGHSTIEKRFAFNLLDKLIH
SEQ ID NO:60	IWAKKKLELESKGGGNHPLVLPYDITLTAKEKAKOREKAQDILKFLQISGYVVSRGFKD---LDLD---TPSIEKRFAYSFLOQLIRY
SEQ ID NO:61	IWAKKKLELESKGGGNHPLVLPYDITLTAKEKAKOREKAQDILKFLQINGYAVSRGFKD---LELD---TPSIEKRFAYSFLOQLIRY
SEQ ID NO:62	IWAKKKMELESKGGGNHPLVLPYDITLTAKEKAKOREKAQDILKFLQINGYAVSRGFKD---LELD---TPSIEKRFAYSFLOQLIRY
SEQ ID NO:2	IDRATINMKLLKPST-TFSRRSSFKTSTRDIKFFSKVVLPLMEKYFSTHRNYFIAVATATNSVG--AASLKEKEMVAALFCKLASLLRSR
SEQ ID NO:128	IDRATINMKLLKPST-TFSRRSSFKTSTRDIKFFSKAVLPLMEKYFSTHRNYFIAVATATNNVG--AASLKEKEMVAALFCKLASLLRSR
SEQ ID NO:130	IDRATINMKLLKPST-TFSRRSSFKTSTRDIKFFSKVVLPLMEKYFSTHRNYFIAVATATNNVG--AASLKEKEMVAALFCKLASLLRSR
SEQ ID NO:144	IDRATINMKLLKPST-TFSRRSSFKTSTRDIKFFSKVVLPLMEKYFSTHRNYFIAVATATNNVG--AASLKEKEMVAALFCKLASLLRSR
SEQ ID NO:146	IDRATINMKLLKPST-TFSRRSSFKTSTRDIKFFSKVVLPLMEKYFSTHRNYFIAVATATNNVG--AASLKEKEMVAALFCKLASLLRSR
SEQ ID NO:4	IDRASINMKLLKPSG-TFSRRSSFKICTRDIKFFSKVVLPLVEKYFSTHRNYFIVATASSVLG--AASLKEKEMVASLFCFLANLLRSK
SEQ ID NO:6	IDRASINMKLLKPSG-TFSRRSSFKICTRDIKFFSKVVLPLVEKYFSTHRNYFIVATASSVLG--AASLKEKEMVASLFCFLANLLRSK
SEQ ID NO:8	IDRASINMKLLKPSG-TFSRRSSFKICTRDIKFFSKVVLPLVEKYFSTHRNYFIVATASNNIG--AASLKEKEMVASLFCFLANLLRSR
SEQ ID NO:10	IDRATINMKLLKPST-TFSRRSSFKPATRDIKFFSKVVLPLMEKYFSTHRNYFIAVATATNNIG--AASLKEKEMVASIFCKLAALLRNR
SEQ ID NO:56	IDRATINMKLLKPST-TFSRRSSFKPATRDIKFFSKVVLPLMEKYFSTHRNYFIAVATATNNIG--AASLKEKEMVASIFCKLAALLRNR
SEQ ID NO:57	SDRATINMKLLKPS--TFSRRSSFKTCSRDIKFFSKVVLPLMEKYFSSNNRYFIAVATATNNIG--AASLKEKEMVAGLFCFLASLLRHR
SEQ ID NO:58	LEQASLKMKSVKPSQ-ELTRSSNFKKGQDVFFKVKVLPPLMHAYFNAHKNYFLEGSSIVQGT--ASNKEKEMVANLFCFLAALLRIK
SEQ ID NO:59	VDEAHQYILFEFDGGS---RSKGEHFPYEQEIKFFFAKVVLPIDQYFKNHRLYFLSAASRPLCTG-GHASNKEKEMVTSLFCFLGVLVRHR
SEQ ID NO:60	VDEAHQYILFEFDGGS---RSKGEHFPYEQEIKFFFAKVVLPIDQYFKNHRLYFLSAASRPLCTG-GHASNKEKEMVTSLFCFLGVLVRHR
SEQ ID NO:61	VDEAHQYILFEFDGGS---RSKGEHFPYEQEIKFFFAKVVLPIDQYFKNHRLYFLSAASRPLCTG-GHASNKEKEMVTSLFCFLGVLVRHR
SEQ ID NO:62	VDEAHQYILFEFDGGS---RGKGEHFPYEQEIKFFFAKVVLPIDQYFKNHRLYFLSAASRPLCTG-GHASNKEKEMVTSLFCFLGVLVRHR

FIGURE 1T

SEQ ID NO: 2	LAAFGPDVRIITVRCLQVLVRGIDAKSLVKNCPEFIRTSMLTFFNNVADDVGHTIMNLQDG-KYAHLR-GTHLKTSTSLGYIHGVLPILT
SEQ ID NO: 128	LAAFGPDVRIITVRCLQVLVRGIDAKSLVKNCPEFIRTSMLTFFNNVADDVGHTIMNLQDG-KYAHLR-GTHLKTSTSLGYINGVLLPILT
SEQ ID NO: 130	LAAFGPDVRIITVRCLQVLVRGIDAKSLVKNCPEFIRTSMLTFFNNVADDVGHTIMNLQDG-KYAHLR-GTHLKTSTSLGYINGVLLPILT
SEQ ID NO: 144	LAAFGPDVRIITVRCLQVLVRGIDAKSLVKNCPEFIRTSMLTFFNNVADDVGHTIMNLQDG-KYAHLR-GTHLKTSTSLGYINGVLLPILT
SEQ ID NO: 146	LAAFGPDVRIITVRCLQVLVRGIDAKSLVKNCPEFIRTSMLTFFNNVADDVGHTIMNLQDG-KYAHLR-GTHLKTSTSLGYINGVLLPILT
SEQ ID NO: 4	LMAFGADVRIITVRCLQVLVRGIDAKSLVKNCPEFIRTSMLTFFNNVADDVGHTIMNLQDG-KYAHLR-GTHLKTSTSLFYVNDVILPVLS
SEQ ID NO: 6	LMAFGADVRIITVRCLQVLVRGIDAKSLVKNCPEFIRTSMLTFFNNVADDVGHTIMNLQDG-KYAHLR-GTHLKTSTSLFYVNDVILPVLS
SEQ ID NO: 8	LMAFGADVRIITVRCLQVLVRGIDAKSLVKNCPEFIRTSMLTFFNNVADDVGHTIMNLQDG-KYAHLR-GTHLKTSTSLFYVNDVILPVLT
SEQ ID NO: 10	LSAFGPDVRIITVRCLQVLVRGIDARTLTKNCPPEFIRTSMLTFFNQTSDDGLNTIILNLQDG-KYSHLR-GTHLKTSTSLGYVNVQVLPVLT
SEQ ID NO: 56	LSAFGPDVRIITVRCLQVLVRGIDARTLTKNCPPEFIRTSMLTFFNQTSDDGLNTIILNLQDG-KYSHLR-GTHLKTSTSLGYVNVQVLPVLT
SEQ ID NO: 57	LAAFGADVRIITVRCLQVLVRGIDARTLTKNCPPEFIRTSMLTFFNQTSDDGLNTIILNLQDG-KYSHLR-GTHLKTSTSLGYVNVQVLPVLT
SEQ ID NO: 58	NRAFGSVAKITVKCLQGLTQALDRLRTLVKNSDIVRTSLTFFNNCADDLYASVNELKDGQYSLIR-GQALKSWNSFEFANQMIVPVLT
SEQ ID NO: 59	INLFGRLVPFIRCIIRVVAQSIDASSVVKHSADAIKNGLLVFFRHASDDLVATVDSVTSGGRFTHIKSNQVHKHSLAVNYVPGVLVPVLI
SEQ ID NO: 60	ISLFGNDATSIIVNCLHILGQTLTDLARTVMKTGLDSVKSALRAFLDNAEDELKTMENLKQG-QFTHTR-SQPKGVTQIINYTTVALLPMLS
SEQ ID NO: 61	ISLFGNDATSIIVNCLHILGQTLTDLARTVMKTGLESVKSALRAFLDNAEDELKTMENLKQG-QFTHTR-NQPRGVTQIINYTTVALLPMLS
SEQ ID NO: 62	ISLFGNDATSIIVNCLHILGQTLTDLARTVMKTGLESVKSALRAFLDNAEDELKTMENLKQG-QFTHTR-NQPKGVTQIINYTTVALLPMLS
SEQ ID NO: 2	AKFDHLANCEYGADLLILDEIQVASYKMLGSLYALGTDASLTDRKYLKTEIERHKPALGSCIGAFSSSTFPVAFQEPHLNKHNFSLNRI
SEQ ID NO: 128	AKFDHLANCEYGADLLILDEIQVASYKMLGSLYALGTDASLTDRKYLKTEIERHKPALGSCIGAFSSSTFPVAFQEPHLNKHNFSLNRI
SEQ ID NO: 130	AKFDHLANCEYGADLLILDEIQVASYKMLGSLYALGTDASLTDRKYLKTEIERHKPALGSCIGAFSSSTFPVAFQEPHLNKHNFSLNRI
SEQ ID NO: 144	AKFDHLANCEYGADPLILDEIQVASYKMLGSLYALGTDASLTDRKYLKTEIERHKPALGSCIGAFSSSTFPVAFQEPHLNKHNFSLNRI
SEQ ID NO: 146	AKFDHLANCEYGADLLILDEIQVASYKMLGSLYALGTDASLTDRKYLKTEIERHKPALGSCIGAFSSSTFPVAFQEPHLNKHNFSLNRI
SEQ ID NO: 4	SLFDHLAAVEYGNELLILNEIQVAAVKMLSSLYTLGTDTSLTDRKYLKVQLERHRAFPAGSCIGAFSSSTFPVAFQEPHLNKHNFSLNRI
SEQ ID NO: 6	SLFDHLAAVEYGNELLILNEIQVAAVKMLSSLYTLGTDTSLTDRKYLKVQLERHRAFPAGSCIGAFSSSTFPVAFQEPHLNKHNFSLNRI
SEQ ID NO: 8	AMFDHLAAACEYGSDDLVLDEIQVASYKMLGSLYALGTDVTLTDRKYLKTEIERHRLPQGRCLGAYASTFPVAFQEPHLNKHNFSLNRI
SEQ ID NO: 10	AMFDHLAAACEYGSDDLVLDEIQVASYKMLGSLYALGTDVTLTDRKYLKTEIERHRLPQGRCLGAYASTFPVAFQEPHLNKHNFSLNRI
SEQ ID NO: 56	AMFDHLAAACEYGSDDLVLDEIQVASYKMLGSLYALGTDVTLTDRKYLKTEIERHRLPQGRCLGAYASTFPVAFQEPHLNKHNFSLNRI
SEQ ID NO: 57	SLFDHLAAACEYGSDDLVLDEIQVASYKMLGSLYALGTDVTLTDRKYLKTEIERHRLPQGRCLGAYASTFPVAFQEPHLNKHNFSLNRI
SEQ ID NO: 58	TMFAHLARNHFGTDLILDDIQAAVCYKILDSLYMTGLSSISHRKSIISGESEKHPGLGQCLAAAFASCTPVAFLPEFHNKFNKSVLAKS
SEQ ID NO: 59	SLFQHLARNHFGTDLILDDIQVYCYRILSLCYKVGADQSI-----Y--VKKLPVAVGELLAFAFAGAFVAFLEPHLNKNNPNSLLGQI
SEQ ID NO: 60	SLFEHIGHQHGFEGDLILEDVQVSCYRILTSYALGTSKSI-----Y--VERQSAIGECLAFAFAGAFVAFLETHLDKHNVIYSYNTK
SEQ ID NO: 61	SLFEHIGHQHGFEGDLILEDVQVSCYRILTSYALGTSKSI-----Y--VERQSAIGECLAFAFAGAFVAFLETHLDKHNVIYSYNTK
SEQ ID NO: 62	SLFEHIGHQHGFEGDLILEDVQVSCYRILTSYALGTSKSI-----Y--VERQSAIGECLAFAFAGAFVAFLETHLDKHNVIYSYNTK



**FIGURE 1U**

SEQ ID NO: 2	ADHS---LEAQDIMQKMEQCMPITLITGEVDQFVESDKTYNEAPHIIDVLPILLCSYLPFWWAQGPDPNVPTTGGN-----HVTMVTAEH
SEQ ID NO: 128	ADHS---LEAQDIMQKMEQCMPITLITGEVDQFVESDKTYNEAPHIIDVLPILLCSYLPFWWAQGPDPNVPTTGGN-----HVTMVTAEH
SEQ ID NO: 130	ADHS---LEAQDIMQKMEQCMPITLITGEVDQFVESDKTYNEAPHIIDVLPILLCSYLPFWWAQGPDPNVPTTGGN-----HVTMVTAEH
SEQ ID NO: 144	ADHS---LEAQDIMQKMEQCMPITLITGEVDQFVESDKTYNEAPHIIDVLPILLCSYLPFWWAQGPDPNVPTTGGN-----HVTMVTAEH
SEQ ID NO: 146	ADHS---LEAQDIMQKMEQCMPITLITGEVDQFVESDKTYNEAPHIIDVLPILLCSYLPFWWAQGPDPNVPTTGGN-----HVTMVTAEH
SEQ ID NO: 4	ADSS---LEAQDIMSRTGEMPTLITLNEVDQFIESEKTYTDAPHIIDVLPILLCSYLPFWWAQGPDPNVPTTGGN-----HVTMVTSEH
SEQ ID NO: 6	ADSS---LEAQDIMSRTGEMPTLITLNEVDQFIESEKTYTDAPHIIDVLPILLCSYLPFWWAQGPDPNVPTTGGN-----HVTMVTSEH
SEQ ID NO: 8	ADHS---LEAQDILSRMESTMPTLITLNEVDQFVESDKTHNDAPHIIDVIMPMLCSYLPVWNNQGPDPNVPTTGGN-----YVTTVTSEH
SEQ ID NO: 10	ADHS---LEAQDIMVKMESCMPNLETILAEVDQFVESDKTYNDAPHIIDVLPILLCAYLPFWWSQGPDPNVPTTGGN-----HVTMVTADH
SEQ ID NO: 56	ADHS---LEAQDIMVKMESCMPNLETILAEVDQFVESDKTYNDAPHIIDVLPILLCAYLPFWWSQGPDPNVPTTGGN-----HVTMVTADH
SEQ ID NO: 57	ADTS---LEAQDIMSKMESCMPNLETILAEVDQFVESEKTYQEAQHIIDVLPILLCAYLPFWNNQGPDPNVPTTGGN-----HVTMVTADH
SEQ ID NO: 58	QDQS---VQVQEMLQNTLTHIPHEKLLTDLETANNNTMYSDVPNVYDVLPLMCSYMAHWFVSGPDGKDKEDQASVVQTTSVSCDH
SEQ ID NO: 59	ELRG-ATVEGKEELIKLAGIPTLPVAVTEIDKMAKAKYDQAPHIIEVILPMLCSYLYNYWQQGPDNICRRQGN-----YWTMVNSGN
SEQ ID NO: 60	SSRRTALSLPANVEDVCPNIPSLKLMTEIIELAESGIRYQMPYMMEVLPMLCSYMSRWHEHGPENHPERAEM-----CCTALNSEH
SEQ ID NO: 61	SSRRAALSLPANVEDVCPNIPSLKLMTEIIELAESGIRYQMPYMMEVLPMLCSYMSRWHEHGPENHPERAEM-----CCTALNSEH
SEQ ID NO: 62	SSRRAALSLPTNVEDVCPNIPSLKLMTEIIELAESGIRYQMPYMMEVLPMLCSYMSRWHEHGPENHPERAEM-----CCTALNSEH
SEQ ID NO: 2	MNQLLKNVLKLIKKNIGNENAPWMTIRIATYTQIIINSSEELLRDSFLPLAERVKRKRTDNMFHKEESLRGFIKSSTDDTSQVESIQI QEDW
SEQ ID NO: 128	MNQLLKNVLKLIKKNIGNENAPWMTIRIATYTQIIINSSEELLRDSFLPLAERVKRKRTDNMFHKEESLRGFIKSSTDDTSQVESIQI QEDW
SEQ ID NO: 130	MNQLLKNVLKLIKKNIGNENAPWMTIRIATYTQIIINSSEELLRDSFLPLAERVKRKRTDNMFHKEESLRGFIKSSTDDTSQVESIQI QEDW
SEQ ID NO: 144	MNQLLKNVLKLIKKNIGNENAPWMTIRIATYTQIIINSSEELLRDSFLPLAERVKRKRTDNMFHKEESLRGFIKSSTDDTSQVESIQI QEDW
SEQ ID NO: 146	MNQLLKNVLKLIKKNIGNENAPWMTIRIATYTQIIINSSEELLRDSFLPLAERVKRKRTDNMFHKEESLRGFIKSSTDDTSQVESIQI QEDW
SEQ ID NO: 4	MNCLLKNVLKLIKKNIGNDNAPWMTQIAAYTQIIINSSEELLKDPFLPLAERVKKRTETLYHKEESLRGFIKSSTDDTSQIEAQIQEDW
SEQ ID NO: 6	MNCLLKNVLKLIKKNIGNDNAPWMTQIAAYTQIIINSSEELLKDPFLPLAERVKKRTETLYHKEESLRGFIKSSTDDTSQIEAQIQEDW
SEQ ID NO: 8	MNQLLKNVLKMIKKNIGNESAPWMTIRIAYTQIIINSSEELLKDPFLPLAERVKKRTETLYHKEESLRGFIKSSTDDTSQIEAQIQEDW
SEQ ID NO: 10	MNPLLRNVLMKMIKKNIGNDNAPWMTIRIAYTQIIINSSEELLKDPFLPLAERVKKRTETLYHKEESLRGFIKSSTDDTSQIEAQIQEDW
SEQ ID NO: 56	MNPLLRNVLMKMIKKNIGNDNAPWMTIRIAYTQIIINSSEELLKDPFLPLAERVKKRTETLYHKEESLRGFIKSSTDDTSQIEAQIQEDW
SEQ ID NO: 57	MNHLKNVLKMIKKNIGNDNAPWMTIRIAYTQIIINSSEELLKDPFLPLAERVKKRTETLYHKEESLRGFIKSSTDDTSQIEAQIQEDW
SEQ ID NO: 58	INRIFNALLKMIKKNIGNDNAPWMTIRIAYTQIIINSSEELLKDPFLPLAERVKKRTETLYHKEESLRGFIKSSTDDTSQIEAQIQEDW
SEQ ID NO: 59	LNNTLGNVLTIVKNNLGNENAPWMTIRIATYQIIINSSEELLKDPFLPLAERVKKRTETLYHKEESLRGFIKSSTDDTSQIEAQIQEDW
SEQ ID NO: 60	MNTLLGNLTILKIYNNLGNIDEGAWMKRLAVFSQPIINKNVCPQLLKTTHFLPLMEKLLKKAAMVSEEDHLKAEARG---DMSEAEILLILDEF
SEQ ID NO: 61	MNTLLGNLTILKIYNNLGNIDEGAWMKRLAVFSQPIINKNVCPQLLKTTHFLPLMEKLLKKAAMVSEEDHLKAEARG---DMSEAEILLILDEF
SEQ ID NO: 62	MNTLLGNLTILKIYNNLGNIDEGAWMKRLAVFSQPIINKNVCPQLLKTTHFLPLMEKLLKKAAMVSEEDHLKAEARG---DMSEAEILLILDEF

FIGURE 1V

SEQ ID NO: 2	QLLVRDIYSFYPLLIIKYVDLQQRNHWLRNNVPEAEELYNHVABEIFNIWSKSYFLKEEQNFISANEIDNMVLIIMPTATRRV---TAVTDGT
SEQ ID NO: 128	QLLVRDIYSFYPLLIIKYVDLQQRNHWLRNNVPEAEELYNHVABEIFNIWSKSYFLKEEQNFISANEIDNMVLIIMPTATRRV---TAVTDGT
SEQ ID NO: 130	QLLVRDIYSFYPLLIIKYVDLQQRNHWLRNNVPEAEELYNHVABEIFNIWSKSYFLKEEQNFISANEIDNMVLIIMPTATRRV---TAVTDGT
SEQ ID NO: 144	QLLVRDIYSFYPLLIIKYVDLQQRNHWLRNNVPEAEELYNHVABEIFNIWSKSYFLKEEQNFISANEIDNMVLIIMPTATRRV---TAVTDGT
SEQ ID NO: 146	QLLVRDIYSFYPLLIIKYVDLQQRNHWLRNNVPEAEELYNHVABEIFNIWSKSYFLKEEQNFISANEIDNMVLIIMPTATRRV---TAVTDGT
SEQ ID NO: 4	QLVVRDIYAFYPLLIIKYVDLQQRNHWLRNNVPEAEELYNHVABEIFNIWSKSYFLKEEQNFISANEIDNMVLIIMPTATRRS---AVISETS
SEQ ID NO: 6	QLVVRDIYAFYPLLIIKYVDLQQRNHWLRNNVPEAEELYNHVABEIFNIWSKSYFLKEEQNFISANEIDNMVLIIMPTATRRS---AVISETS
SEQ ID NO: 8	QLLVRDIYSFYPLLIIKYVDLQQRNHWLRNNVPEAEELYNHVABEIFNIWSKSYFLKEEQNFISANEIDNMVLIIMPTATRRS---SAISEGA
SEQ ID NO: 10	QLLVRDIYSFYPLLIIKYVDLQQRNHWLRNNVPEAEELYNHVABEIFNIWSKSYFLKEEQNFISANEIDNMVLIIMPTATRRS---SAISEGA
SEQ ID NO: 56	QLLVRDIYSFYPLLIIKYVDLQQRNHWLRNNVPEAEELYNHVABEIFNIWSKSYFLKEEQNFISANEIDNMVLIIMPTATRRS---AAVSGDM
SEQ ID NO: 57	QLLVRDIYSFYPLLIIKYVDLQQRNHWLRNNVPEAEELYNHVABEIFNIWSKSYFLKEEQNFISANEIDNMVLIIMPTATRRS---AAVSGDM
SEQ ID NO: 58	ARLVRDITYAFFPILMKYTDLHRAQWLKTPTWETDGVYENVAVIFRIWSQSQHPKREELNYVAQFEEDAAATGGGDMKTG-----KAA
SEQ ID NO: 59	HLIIRDLIYASYPILLIKFVDSQRSQWLKSPSIDAEKLYYKVASIFNSWARSANFRREEQNYVAQTEVDSAAALTSAMSKSGGNGNFSYGG
SEQ ID NO: 60	TTLARDLIYAFYPLLIIRFVDYNRAKWLKEPNEAEELFRMVAEVFIYWSKSHNFKREEQNFVQNEINNMFLITDTKS-----KMSKAA
SEQ ID NO: 61	TTLARDLIYAFYPLLIIRFVDYNRAKWLKEPNEAEELFRMVAEVFIYWSKSHNFKREEQNFVQNEINNMFLITDTKS-----KMSKAA
SEQ ID NO: 62	TTLARDLIYAFYPLLIIRFVDYNRAKWLKEPNEAEELFRMVAEVFIYWSKSHNFKREEQNFVQNEINNMFLITDTKS-----KMSKAA
SEQ ID NO: 2	PQGGG--KKKKKHRDKKRDKDKEVQASLMVACIKRLLPVGLNLFAGREQELVQHCCKDRFLKVGTLKQWSEQDVAAEFQAKTQTLPLDKIDPA
SEQ ID NO: 128	PQGGG--KKKKKHRDKKRDKDKEVQASLMVACIKRLLPVGLNLFAGREQELVQHCCKDRFLKVGTLKQWSEQDVAAEFQAKTQTLPLDKIDPA
SEQ ID NO: 130	PQGGG--KKKKKHRDKKRDKDKEVQASLMVACIKRLLPVGLNLFAGREQELVQHCCKDRFLKVGTLKQWSEQDVAAEFQAKTQTLPLDKIDPA
SEQ ID NO: 144	PQGGG--KKKKKHRDKKRDKDKEVQASLMVACIKRLLPVGLNLFAGREQELVQHCCKDRFLKVGTLKQWSEQDVAAEFQAKTQTLPLDKIDPA
SEQ ID NO: 146	PQGGG--KKKKKHRDKKRDKDKEVQASLMVACIKRLLPVGLNLFAGREQELVQHCCKDRFLKVGTLKQWSEQDVAAEFQAKTQTLPLDKIDPA
SEQ ID NO: 4	LG-GSTGKKKKKHRDKKRDKEKEIQASLMVACIKRLLPVGLNLFAGREQELVQHCCKDRFLKVGTLKQWSEQDVAAEFQAKTQTLPLDKIDPA
SEQ ID NO: 6	LG-GSSGKKKKKHRDKKRDKEKEIQASLMVACIKRLLPVGLNLFAGREQELVQHCCKDRFLKVGTLKQWSEQDVAAEFQAKTQTLPLDKIDPA
SEQ ID NO: 8	APPGGGKKKKKKNRDKKRDKEKEIQASLMVACIKRLLPVGLNLFAGREQELVQHCCKDRFLKVGTLKQWSEQDVAAEFQAKTQTLPLDKIDPA
SEQ ID NO: 10	PAVGGKVKKKKKNRDKKRDKEKEIQASLMVACIKRLLPVGLNLFAGREQELVQHCCKDRFLKVGTLKQWSEQDVAAEFQAKTQTLPLDKIDPA
SEQ ID NO: 56	PAVGGKVKKKKKNRDKKRDKEKEIQASLMVACIKRLLPVGLNLFAGREQELVQHCCKDRFLKVGTLKQWSEQDVAAEFQAKTQTLPLDKIDPA
SEQ ID NO: 57	PASGGKVKKKKRSRDKKRDKEKEIQSSLMVACIKRLLPVGLNLFAGREQELVQHCCKDRFLKVGTLKQWSEQDVAAEFQAKTQTLPLDKIDPA
SEQ ID NO: 58	IAERK---E-QIKKDKHAASIVIAALKRLPIGLNIFVGGRELDIVQOSKEKFIQK-----ETEEKIREFVFKGLLEIPVKTDPT
SEQ ID NO: 59	SLPGEPP-KLQSTAPKPPDGHGSPPSLILAAKRLPIGLNICAPGQDELIALAKNRFSLK-----DTEEEVRDIIRSNIHLOQKLE-D
SEQ ID NO: 60	ISDQER-KMK-----RKGDYSMTQSLIIVAALKRLPIGLNICAPGQDELIALAKNRFSLK-----DTEEEVRDIIRSNIHLOQKLE-D
SEQ ID NO: 61	VSDQER-KMK-----RKGDYSMTQSLIIVAALKRLPIGLNICAPGQDELIALAKNRFSLK-----DTEEEVRDIIRSNIHLOQKLE-D
SEQ ID NO: 62	VSDQER-KMK-----RKGDYSMTQSLIIVAALKRLPIGLNICAPGQDELIALAKNRFSLK-----DTEEEVRDIIRSNIHLOQKLE-D



**FIGURE 1X**

SEQ ID NO: 2	ACFRQTSLSLPRHRACNIFARTYYELWLEENI-RQEVMIEDLTQSFDAE-----LKKSDVVEEGEKDPDPLTQLVTTTS
SEQ ID NO: 128	ACFRQTSLSLPRHRACNIFARTYYELWLEENI-GQEVMIEDLTQSFDAE-----LKKSDVVEEGEKDPDPLTQLVTTTF
SEQ ID NO: 130	ACFRQTSLSLPRHRACNIFARTYYELWLEENI-GQEVMIEDLTQSFDAE-----LKKSDVVEEGEKDPDPLTQLVTTTF
SEQ ID NO: 144	ACFRQTSLSLPRHRACNIFARTYYELWLEENI-GQEVMIEDLTQSFDAE-----LKKSDVVEEGEKDPDPLTQLVTTTF
SEQ ID NO: 146	ACFRQTSLSLPRHRACNIFARTYYELWLEENI-GQEVMIEDLTQSFDAE-----LKKSDVVEEGEKDPDPLTQLVTTTF
SEQ ID NO: 4	ACFRQLSLHALTRHRAVNI-FVRSFYELWLQDENI-GQEWMIEDLTQSFDAE-----LKKRDKEEEEGMADPLNQMVTTTF
SEQ ID NO: 6	ACFRQLSLHALTRHRAVNI-FVRSFYELWLQDENI-GQEWMIEDLTQSFDAE-----LKKRDKEEEEGMADPLNQMVTTTF
SEQ ID NO: 8	ACFRQLSLHALPRHRAVNI-FVRSFYELWLQDENI-GQEWMIEDLTQSFDAE-----LKKRDKEEEEGMADPLNQMVTTTF
SEQ ID NO: 10	ACFRQTSLSLPRHRACNIFARSYYEQLQDENI-GTEVLIEDLTQSFDAE-----LKKTDEEVDEGKSDPLTQLVTTTF
SEQ ID NO: 10	ACFRQTSLSLPRHRACNIFARSYYEQLQDENI-GQEVMIEDLTQSFDAE-----LKKTDEEVDEGKSDPLTQLVTTTF
SEQ ID NO: 56	ACFRQTSLSLPRHRACNIFARSYYEQLQDENI-GQEVMIEDLTQSFDAE-----LKKTDEEVDEGKSDPLTQLVTTTF
SEQ ID NO: 57	-----LKKTDEEVDEGKSDPLTQLVTTTF
SEQ ID NO: 58	SLITASHLYKTELHRGINFPLPAFSLRWEEEDA-GQDQLIADICSGVEEEEGPRIEIIIEEGVPIVASEDTKEKETNPDPKQLIRCF
SEQ ID NO: 59	ACFRMIPHLHLPRHRAVNI-FVRSFYELWLQDENI-GQEWMIEDLTQSFDAE-----LKKRDKEEEEGMADPLNQMVTTTF
SEQ ID NO: 60	ACFRMAPLYNLPRHRAVNI-FVRSFYELWLQDENI-GQEWMIEDLTQSFDAE-----LKKRDKEEEEGMADPLNQMVTTTF
SEQ ID NO: 61	ACFRMAPLYNLPRHRAVNI-FVRSFYELWLQDENI-GQEWMIEDLTQSFDAE-----LKKRDKEEEEGMADPLNQMVTTTF
SEQ ID NO: 62	ACFRMAPLYNLPRHRAVNI-FVRSFYELWLQDENI-GQEWMIEDLTQSFDAE-----LKKRDKEEEEGMADPLNQMVTTTF
SEQ ID NO: 2	CRGAMTERSGA--LQEDPLYMSYAHIIAKSCGEEEEEGGEEEEEGGEEAEEDEGRASIIHEQEEMKQKLLFHQARPADRGVAEMVLLHIS
SEQ ID NO: 128	CRGAMTERSGA--LQEDPLYMSYAHIIAKSCGEEEEEGGEEEEEGGEEAEEDEGRASIIHEQEEMKQKLLFHQARPADRGVAEMVLLHIS
SEQ ID NO: 130	CRGAMTERSGA--LQEDPLYMSYAHIIAKSCGEEEEEGGEEEEEGGEEAEEDEGRASIIHEQEEMKQKLLFHQARPADRGVAEMVLLHIS
SEQ ID NO: 144	CRGAMTERSGA--LQEDPLYMSYAHIIAKSCGEEEEEGGEEEEEGGEEAEEDEGRASIIHEQEEMKQKLLFHQARPADRGVAEMVLLHIS
SEQ ID NO: 146	CRGAMTERSGA--LQEDPLYMSYAHIIAKSCGEEEEEGGEEEEEGGEEAEEDEGRASIIHEQEEMKQKLLFHQARPADRGVAEMVLLHIS
SEQ ID NO: 4	CRGAMTERSGA--LQEDPLYMSYADIIAKSCGEEEEEGGEEEEEGGEEAEEDEGRASIIHEQEEMKQKLLFHQARLANRGVAEMVLLHIS
SEQ ID NO: 6	CRGAMTERSGA--LQEDPLYMSYADIIAKSCGEEEEEGGEEEEEGGEEAEEDEGRASIIHEQEEMKQKLLFHQARLANRGVAEMVLLHIS
SEQ ID NO: 8	CRGAMTERSGA--LQEDPLYMSYAEIIAKSCGEEEEEGGEEEEEGGEEAEEDEGRASIIHEQEEMKQKLLFHQARLANRGVAEMVLLHIS
SEQ ID NO: 10	CRGAMTERSGA--LQEDPLYMSYAEIIAKSCGEEEEEGGEEEEEGGEEAEEDEGRASIIHEQEEMKQKLLFHQARLANRGVAEMVLLHIS
SEQ ID NO: 56	CRGAMTERSGA--LQEDPLYMSYAEIIAKSCGEEEEEGGEEEEEGGEEAEEDEGRASIIHEQEEMKQKLLFHQARLANRGVAEMVLLHIS
SEQ ID NO: 57	-----E-----QEMEKQKLLFHQARLANRGVAEMVLLHIS
SEQ ID NO: 58	QRAATSEETAASAIHEDSLYIRFADVMAKSIHIEEDGED-----GEEGEIDQAAKEBQSQUALRGEQAVLASRGAAMCLMYLS
SEQ ID NO: 59	SRAFGLQQ-DM--LEEDPLYMSYAAIMSTSCSGEDDDDDDD--G-----GDENGTSFQEQEMEKQKLLSEQARLAERGCAEMVLLHIS
SEQ ID NO: 60	SRTALTEK-CK--LEEDPLYMAYADIMAKSCHDEDDDD-----GEEVKSFEKEEMEKQKLLYQQARLHNRGAEMVLTQIS
SEQ ID NO: 61	SRTALTEK-CK--LEEDPLYMAYADIMAKSCHDEDDDD-----GEEVKSFEKEEMEKQKLLYQQARLHNRGAEMVLTQIS
SEQ ID NO: 62	SRTALTEK-CK--LEEDPLYMAYADIMAKSCHDEDDDD-----GEEVKSFEKEEMEKQKLLYQQARLHNRGAEMVLTQIS

**FIGURE 1Y**

SEQ ID NO: 2	ASKGLPSEMVMKTLQLGISILRGNNIDIQMGMLNHLKDKKDVGGFTTSIAGLMNCSVLDLAFERNTKAEGLVGLEGAA-----GEKD
SEQ ID NO: 128	ASKGLPSEMVMKTLQLGISILRGNNIDIQMGMLNHLKDKKDVGGFTTSIAGLMNCSVLDLAFERNTKAEGLVGLEGAA-----GEKD
SEQ ID NO: 130	ASKGLPSEMVMKTLQLGISILRGNNIDIQMGMLNHLKDKKDVGGFTTSIAGLMNCSVLDLAFERNTKAEGLVGLEGAA-----GEKD
SEQ ID NO: 144	ASKGLPSEMVMKTLQLGISILRGNNIDIQMGMLNHLKDKKDVGGFTTSIAGLMNCSVLDLAFERNTKAEGLVGLEGAA-----GEKD
SEQ ID NO: 146	ASKGLPSEMVMKTLQLGISILRGNNIDIQMGMLNHLKDKKDVGGFTTSIAGLMNCSVLDLAFERNTKAEGLVGLEGAA-----GEKD
SEQ ID NO: 4	ACKGIPSEMVMKTLQLGIAVLRGGNLEIQMGMLNHLKEKKDVGGFTTSVAGLMNCSVLDLAFERNTKAEGLVGSEGAA-----GEKD
SEQ ID NO: 6	ACKGIPSEMVMKTLQLGIAVLRGGNLDIQMGMLNHLKEKKDVGGFTTSVAGLMNCSVLDLAFERNTKAEGLVGSEGAA-----GEKD
SEQ ID NO: 8	ACNGVPSDMVEKTLQLGISILRGNNIDIQMGMLNHLKEKKDVGGFTTSIAGLMNCSVLDLAFERNTKAEGLVGSDGAA-----GEKD
SEQ ID NO: 10	ASKGIPSEMVMKTLNLGIAVLRGGNLDIQMGMLNHLKEKKDVGGFTTSIAGLMNCSVLDLAFERNTKAEGLVGSEGAA-----GEKD
SEQ ID NO: 56	ASKGIPSEMVMKTLNLGIAVLRGGNLDIQMGMLNHLKEKKDVGGFTTSIAGLMNCSVLDLAFERNTKAEGLVGSEGAA-----GEKD
SEQ ID NO: 57	ASKGVPSEMVMKTLNLGIAVLRGGNLDIQMGMLNHLKEKKDVGGFTTSIAGLMNCSVLDLAFERNTKAEGLVGSDGAA-----DNQE
SEQ ID NO: 58	ASGGEPNEMVAQTLQLGIHLLSGGNVEIQKMLLEYLQKKDVRFFTSVAGLMNCSVLDLAFERNTKAEGLVGSDGAA-----DNQE
SEQ ID NO: 59	ASKGEPNEMVFCSLKGLGILRGNNEMVQKMLDYLKEKKDVGGFTTSVAGLMNCSVLDLAFERNTKAEGLVGSDGAA-----GEKN
SEQ ID NO: 60	ASKGETGPMVAATLKLGIALLNGNSTVQKMLDYLKEKKDVGGFTTSVAGLMNCSVLDLAFERNTKAEGLVGSDGAA-----GEKN
SEQ ID NO: 61	ASKGETGPMVAATLKLGIALLNGNSTVQKMLDYLKEKKDVGGFTTSVAGLMNCSVLDLAFERNTKAEGLVGSDGAA-----GEKN
SEQ ID NO: 62	ASKGETGPMVAATLKLGIALLNGNSTVQKMLDYLKEKKDVGGFTTSVAGLMNCSVLDLAFERNTKAEGLVGSDGAA-----GEKN
SEQ ID NO: 2	NMHDAAFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 128	NMHDAAFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 130	NMHDAAFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 144	NMHDAAFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 146	NMHDAAFTCALFRFIQLTCEGHNLDWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 4	NMHDAAFTCTLFRFIQLTCEGHNLEWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 6	NMHDAAFTCTLFRFIQLTCEGHNLEWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 8	NMHDAAFTCTLFRFIQLTCEGHNLEWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 10	NMHDAAFTCTLFRFIQLTCEGHNLEWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 56	NMHDAAFTCTLFRFIQLTCEGHNLEWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 57	NMHDAAFTCTLFRFIQLTCEGHNLEWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 58	NMHDAAFTCTLFRFIQLTCEGHNLEWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 59	NMHDAAFTCTLFRFIQLTCEGHNLEWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 60	NMHDAAFTCTLFRFIQLTCEGHNLEWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 61	NMHDAAFTCTLFRFIQLTCEGHNLEWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN
SEQ ID NO: 62	NMHDAAFTCTLFRFIQLTCEGHNLEWQNYLRTQAGNTTNNVVICITVDYLLRLQESIMDFYWHYSSKELIDPAGKANFFKAIGVASQVFN

**FIGURE 1Z**

SEQ ID NO: 2	TLTEVIQGPCTQNOQALAHSLRLWDVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLPQKDMITMMLSMLEGNVNGTIVKQMDTLVGSAS
SEQ ID NO: 128	TLTEVIQGPCTQNOQALAHSLRLWDVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLPQKDMIPMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 130	TLTEVIQGPCTQNOQALAHSLRLWDVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 144	TLTEVIQGPCTQNOQALAHSLRLWDVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 146	TLTEVIQGPCTQNOQALAHSLRLWDVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 4	TLSEVIQGPCTQNOQALAHSLRLWDVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 6	TLSEVIQGPCTQNOQALAHSLRLWDVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 8	TLSEVIQGPCTQNOQALAHSLRLWDVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 10	TLTEVIQGPCTQNOQALAHSLRLWDVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 56	TLTEVIQGPCTQNOQALAHSLRLWDVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 57	TLTEVIQGPCTQNOQALAHSLRLWDVGGFLFLFSHMQDKLSKHSSQVDLLKELLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 58	TLTESIQGPCVGNQWTLNRSRLWDVGGFLFLFAHMEKLYKNSTQLELLREFLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 59	SLTEYIQGPCSGNQLAHSLRLWDVGGFLFLFAHMEKLYKNSTQLELLREFLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 60	TLTEYIQGPCSGNQLAHSLRLWDVGGFLFLFAHMEKLYKNSTQLELLREFLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 61	TLTEYIQGPCSGNQLAHSLRLWDVGGFLFLFAHMEKLYKNSTQLELLREFLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 62	TLTEYIQGPCSGNQLAHSLRLWDVGGFLFLFAHMEKLYKNSTQLELLREFLNLPQKDMITMMLSMLEGNVNGTIGKQMDTLVESAS
SEQ ID NO: 2	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 128	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 130	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 144	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 146	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 4	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 6	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 8	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 10	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 56	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 57	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 58	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 59	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 60	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 61	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL
SEQ ID NO: 62	NVELILKYFDMFLKLDLTSSASFQEI DANNDGWVLPKDFKEKMEQQKSYTPTEEIEFLACCTNHDGKLDYIGFCDFRHEPAKEIGFNL



**FIGURE 1AA**

SEQ ID NO: 2	AVLLTNLSEHMPNEPRLARFLETAGSVLDYFEPFLGRIEIMGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDREKLE
SEQ ID NO: 128	AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEIMGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 130	AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEIMGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 144	AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEIMGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 146	AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEIMGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 4	AVLLTNLSEHMPNEPRLTRFLETASSVLNYFQPFLLGRIEILGGSKRIERVVFEIKESNIEQWLKPQIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 6	AVLLTNLSEHMPNEPRLTRFLETASSVLNYFQPFLLGRIEILGGSKRIERVVFEIKESNIEQWLKPQIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 8	AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEIMGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 10	AVLLTNLSEHMPNEPRLARFLETAGSVLNYFEPFLGRIEILGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 56	AVLLTNLSEHMPNEPRLARFLETAGSVLNYFESFLGRIEIMGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 57	AVLLTNLSEHMPNEPRLARFLETAGSVLNYFESFLGRIEIMGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 58	AVLLVNLKEHITNDPRLEKILEKAQTLLEYFDPFLGRIEIMGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 59	AVLLTNLNDHMPGERRLERFLLQAESLLTYFEPYLGRIEIMGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 60	AVLLTNLSEHMPNDTRLQTFLELAESVLNYFQPFLLGRIEIMGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 61	AVLLTNLSEHMPNETRLQTFLELAESVLNYFQPFLLGRIEIMGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 62	AVLLTNLSEHMPNDTRLQTFLELAESVLNYFQPFLLGRIEIMGGSKRIERVVFEIKESNIEQWEKPOIKESKRAFFYSIVTE-GGDKEKLE
SEQ ID NO: 2	AFVNFCEDAIFEMTHASGLMAASEES-VGGTKNREASYM-YMGDDGDERAGKDPFRRGLQSVKDG VATAFSSLSPSNIKAKIADMQQMPP
SEQ ID NO: 128	AFVNFCEDAIFEMTHASGLMAASEES-VGGTKNREASYM-YMGDDDDDERAGKDPFRRGLQSVKDG VATAFSSLSPSNIKAKIADMQQMPP
SEQ ID NO: 130	AFVNFCEDAIFEMTHASGLMAASEES-VGGTKNREASYM-YMGDDDDDERAGKDPFRRGLQSVKDG VATAFSSLSPSNIKAKIADMQQMPP
SEQ ID NO: 144	AFVNFCEDAIFEMTHASGLMAASEES-VGGTKNREASYM-YMGDDDDDERAGKDPFRRGLQSVKDG VATAFSSLSPSNIKAKIADMQQMPP
SEQ ID NO: 146	AFVNFCEDAIFEMTHASGLMAASEES-VGGTKNREASYM-YMGDDDDDERAGKDPFRRGLQSVKDG VATAFSSLSPSNIKAKIADMQQMPP
SEQ ID NO: 4	AFVNFCEDAIFEMQHASGLMAVDDGSGIGGKSRKTSYT-YLADDEENKTAKDPIRRGIOAIKYGFHLLFFVLSPNTNKNKINEIQQMSV
SEQ ID NO: 6	AFVNFCEDAIFEMQHASGLMAVDDGSGIGGKSRKTSYT-YLADDEENKTAKDPIRRGIOAIKYGFHLLFFVLSPNTNKNKINEIQQMSF
SEQ ID NO: 8	AFVNFCEDAIFEMTHASGLMSVDDDDSGGGGK---AAYT-YISEEDEENKAKDPIRRATIOAFKDAIYFILTMLSPSNIKTKINEMQQMSV
SEQ ID NO: 10	AFVNFCEDAIFEMTHASGLMATDDG---GGNVKRDYAYSSYMSEEEEEERAAADPIRRITITAVKEGLKFGVHMLSPANIKHQIGVMQTKSI
SEQ ID NO: 56	AFVNFCEDAIFEMTHASGLMATDDG---GGNVKRDYAYSSYMSEEEEEERAAADPIRRITITAVKEGLKFGVHMLSPANIKHQIGVMQTKSI
SEQ ID NO: 57	AFVNFCEDAIFEMTHASGLMASDDD---GGTVRRDQAFYI-YSIEEEEEERAAADPIKRTIOAVKDGSLYSYMYMISPSNIXHQITVLQSKSF
SEQ ID NO: 58	AFVNFCEDAIFEMQHAHAALSSGSDS---TKMERAIKQDYFLQOTSADHISSETFKSGYNYGISAASALSPQNIISTTMRNVSSSVRQMSW
SEQ ID NO: 59	DFVNFCEDTIFEMQHATSISDTSGLNE-PEVFMILLTFGASRDSNNWLVMVRGMRPSNICRLMGDFSSSQYNIKQIRSLSLFRLFFGV
SEQ ID NO: 60	LFVNFCEDTIFEMQLAQAQISESDLINE-RLANKHESEKERPEEQAPRMGFFSLLTIQSAFALRYNVLTLVRMLSLKSLKKQMKMKMTV
SEQ ID NO: 61	LFVNFCEDTIFEMQLAQAQISESDLINE-RSANKHESEKERPEEQAPRMGFFSLLTVRSALFALRYNLLTLMRMLSLKSLKKQMKMKMTV
SEQ ID NO: 62	LFVNFCEDTIFEMQLAQAQISESDLINE-RSANKHESEKERPEEQAPRMGFFSLLTVRSALFALRYNLLTLMRMLSLKSLKKQMKMKMTV

FIGURE 1BB

SEQ ID NO:2	ABELAVGFFKMFYFXYLGYGLVWVRYIFGVLLGLMRGPQTDEPPPEPTEEEKIG-----QLRHRLLATQSSR-----HLPALPPA
SEQ ID NO:128	ABELAVGFFKMFYFXYLGYGLVWVRYIFGVLLGLMRGPQTDEPPPEPTEEEKIG-----QLRHRLLATQSSR-----HLPALPPA
SEQ ID NO:130	ABELAVGFFKMFYFXYLGYGLVWVRYIFGVLLGLMRGPQTDEPPPEPTEEEKIG-----QLRHRLLATQSSR-----HLPALPPA
SEQ ID NO:144	ABELAVGFFKMFYFXYLGYGLVWVRYIFGVLLGLMRGPQTDEPPPEPTEEEKIG-----QLRHRLLATQSSR-----HLPALPPA
SEQ ID NO:146	ABELAVGFFKMFYFXYLGYGLVWVRYIFGVLLGLMRGPQTDEPPPEPTEEEKIG-----QLRHRLLATQSSR-----HLPALPPA
SEQ ID NO:4	IELITSFFKLWFYLIIFYTGYSGVVLRYISRILMQMSGTQSEETTVVVEEK-----SGSFR-----MLPALPSS
SEQ ID NO:6	VELITSFFKLWFYLIIFYTGYSGVVLRYISRILMQMSGTQSEETTVVVEEK-----AGSFR-----MLPALPSS
SEQ ID NO:8	PELVVGGFKIFFYMFYSGFSVVLRYFGRILMLMRGPQTEEPVAEVCKEIDEI-----MGPIR-----ALPPPPPD
SEQ ID NO:10	PELIVGFFKLIIFYIIFYTGYAHFCVVRIFYGILLNMRGPAEQ-EEEPVVEET-----FGR-----ALPPLSLE
SEQ ID NO:56	PELIVGFFKLIIFYIIFYTGYAHFCVVRIFYGILLNMRGPAEQ-EEEPVVEET-----FGR-----ALPPLPLE
SEQ ID NO:57	PELIVGFFKMIFYAFYVSGFVSVIKYLVNIMSLMRGPAQE-EEEPVVEET-----SLR-----ALPPLPLE
SEQ ID NO:58	TQLLYAVIILFIRAGLAIGWAGYLLMTIFRFGYFLTTSSEEAARQEKQAKMN-----N--EHPSEFN-----PPIIQE
SEQ ID NO:59	KLIFLGVFKLKFKAFAFIVGKLIG-LLVGTIRILEDAREITGSIKSHLHVRVARQT-----SSINVPGYGMPARSARNTSFQWYLTQYFT
SEQ ID NO:60	KDMVLAFSSYSWVFVTLHFFVASVCRGFFRIVSSLLGGSLVEGAKKIKVAELLANMPDPTQDEVRGDEEGERK--PLESALPSEDLT
SEQ ID NO:61	KDMVTAFSSYSWIFVTLHFFVASVFRGFFRIVCSLLGGSLVEGAKKIKVAELLANMPDPTQDEVRGDGEGERK--PMETTLPSEDLT
SEQ ID NO:62	KDMVTAFSSYSWIFVTLHFFVASVFRGFFRIICSLLLGGSLVEGAKKIKVAELLANMPDPTQDEVRGDGEGERK--PLEAALPSEDLT
SEQ ID NO:2	DDTGQMVSFAFGLDITKEDNGQ-----IQVKPHESPSTSTPSSGGE-AEVSPPDESADHTEE-----QRPPSLIDLLGGEQAKK
SEQ ID NO:128	DDTGQMVSFAFGLDITKEDNGQ-----IQVKPHESPSTSTPSSGGE-AEVSPPDESADHTEE-----QRPPSLIDLLGGEQAKK
SEQ ID NO:130	DDTGQMVSFAFGLDITKEDNGQ-----IQVKPHESPSTSTPSSGGE-AEVSPPDESADHTEE-----QRPPSLIDLLGGEQAKK
SEQ ID NO:144	DDTGQMVSFAFGLDITKEDNGQ-----IQVKPHESPSTSTPSSGGE-AEVSPPDESADHTEE-----QRPPSLIDLLGGEQAKK
SEQ ID NO:146	DDTGQMVSFAFGLDITKEDNGQ-----IQVKPHESPSTSTPSSGGE-AEVSPPDESADHTEE-----QRPPSLIDLLGGEQAKK
SEQ ID NO:4	GIDETPSTLIDSSNMKNKNSGSL-----DSKHLKSTTGGD--DKOETSANHEKEDGVGDG-----SELQASFVDLLLVGESARK
SEQ ID NO:6	GVDEPPSTLIDSSNMKNKNSGAP-----DSKHVKSTTVGD--DKOETSTENHEKEDGVKSE-----DNSELQASFVDLLLVGESARK
SEQ ID NO:8	NKEASSSSAKODSGQAKPADG-----GATLALTASGE--EHKEGGATEEGAEADGAKPEG--AETTEGTTMTLADLLLGGEAARK
SEQ ID NO:10	EPPG--TVQAFGLDINKEENG--YKVVVHESPAN--SSMEEGGESSPEDGAAASGELVEGEPHQGPISIVDILLGGEAARK
SEQ ID NO:56	EPPG--TVQAFGLDINKEENG--YKVVVHESPAN--SSMEEGGESSPEDGAAASGELVEGEPHQGPISIVDILLGGEAARK
SEQ ID NO:57	EPPG--TVQAFGLDINKEENG--YKVVVHESPAN--SSMEEGGESSPEDGAAASGELVEGEPHQGPISIVDILLGGEAARK
SEQ ID NO:58	FHSHVGVTAFAFGVGMNADHLN-----VNSLPDFVPERPETPETVLEEKPLN-----QETSPTSPST
SEQ ID NO:59	NVNSMDTVSAFIDFLKKGKGGGGGAGGTQYKLRMRKRRLPTPSSSDFDEEMSNMNPHTHPSEASD--SSPDSGAMAKNDFSMFD
SEQ ID NO:60	DLKELTEESDLLSDIFGLDLKREGG-----QYKLI PHNPNAGLSLMTNVPVPEVQEKQEKAKKEE-----KHEKEETKSEPEKAE
SEQ ID NO:61	DLKELTEESDLLSDIFGLDLKREGG-----QYKLI PHNPNAGLSLMTNPNVLIPEEQEKQEKQKKEE-----KHEKEETKSEPEKAE
SEQ ID NO:62	DLKELTEESDLLSDIFGLDLKREGG-----QYKLI PHNPNAGLSLMTNPNVMPPEVQEKQEKQKKEE-----KHEKEETKSEPEKAE

**FIGURE 1CC**

SEQ ID NO: 2	QAQERMEAAQAQAAMSAIEAESKKAQVG-PAPSALSQVDLSQYTRRAVSFLARNFYNLKVALVLAFCINFVLLFYKVSITLDGEGGE--
SEQ ID NO: 128	QAQERMEAAQAQAAMSAIEAESKKAQVG-PAPSALSQVDLSQYTRRAVSFLARNFYNLKVALVLAFCINFVLLFYKVSITLDGEGGE--
SEQ ID NO: 130	QAQERMEAAQAQAAMSAIEAESKKAQVG-PAPSALSQVDLSQYTRRAVSFLARNFYNLKVALVLAFCINFVLLFYKVSITLDGEGGE--
SEQ ID NO: 144	QAQERMEAAQAQAAMSAIEAESKKAQVG-PAPSALSQVDLSQYTRRAVSFLARNFYNLKVALVLAFCINFVLLFYKVSITLDGEGGE--
SEQ ID NO: 146	QAQERMEAAQAQAAMSAIEAESKKAQVG-PAPSALSQVDLSQYTRRAVSFLARNFYNLKVALVLAFCINFVLLFYKVSITLDGEGGE--
SEQ ID NO: 4	DSIAGPEVLAQQQAVMAAVEAEIKQKNSV-ENPSAFSTIDINAYTHRALSFARNFYNLKVALVLAFCINFILLFYKVTTLAEDLSDDG
SEQ ID NO: 6	DSIAGPEVLAQQQAVMAAVEAEIKQKNSV-ENPSAFSTIDINAYTHRALSFARNFYNLKVALVLAFCINFILLFYKVTTLAEDLSDDG
SEQ ID NO: 8	EAVARAEEVAAEQQAVMAAVEAEAKHEVVS-E-PSAFSQIDFNRYTHRAVSFLARNFYNLKVALVLAFCINFILLFYKVTTLGDEDDGG
SEQ ID NO: 10	AAQERQEAQAQEAAMASIEAEAKKSSAPQETPAVHQIDFSQYTHRAVSFLARNFYNLKVALVLAFCINFILLFYKVTSTFEEDS--
SEQ ID NO: 56	AAQERQEAQAQEAAMASIEAEAKKSSAPQETPAVHQIDFSQYTHRAVSFLARNFYNLKVALVLAFCINFILLFYKVTSTFEEDS--
SEQ ID NO: 57	AAQERTEAQAQEAATLASIEAESKKAQVGQYEPKIAESNSTKSGSILNMLARNFKTIEKITLYLAFFINVILLFHRVD-----
SEQ ID NO: 58	SPASKAPSIYESIGAPQMVQLQSEADFQQQYEPKIAESNSTKSGSILNMLARNFKTIEKITLYLAFFINVILLFHRVD-----
SEQ ID NO: 59	MSAGRRDSTVFP-SLFLATMPSTQVKEEEEEEPYEPQMRVKQTVVSLFARNFYNLKVALVLAFCINFILLFYKVTSTFEEDS--
SEQ ID NO: 60	GEDGEKEEKADEKSKQLRQLHTRHYGEPEVPSAFWKKIAYQQKLLNYFARNFYNMRMLALFVAFAINFILLFYKVS--TSSVVE--
SEQ ID NO: 61	GEDGEKEEKVKEDKGKQLRQLHTRHYGEPEVPSAFWKKIAYQQKLLNYFARNFYNMRMLALFVAFAINFILLFYKVS--TSSVVE--
SEQ ID NO: 62	GEDGEKEEKADEKKGKQLRQLHTRHYGEPEVPSAFWKKIAYQQKLLNYFARNFYNMRMLALFVAFAINFILLFYKVS--TSSVVE--
SEQ ID NO: 2	-----GSGLGDI IAGGSGSGAGS-----GSGDGSGETGE--DDDALEVVVHIDEDFFYMEHVIKMAAVLHSIVSLAILIGYYHLKV
SEQ ID NO: 128	-----GSGLGDI IAGGSGSGAGS-----GSGDGSGESGE--DDDALEVVVHIDEDFFYMEHVIKMAAVLHSIVSLAILIGYYHLKV
SEQ ID NO: 130	-----GSGLGDI IAGGSGSGAGS-----GSGDGSGESGE--DDDALEVVVHIDEDFFYMEHVIKMAAVLHSIVSLAILIGYYHLKV
SEQ ID NO: 144	-----GSGLGDI IAGGSGSGAGS-----GSGDGSGESGE--DDDALEVVVHIDEDFFYMEHVIKMAAVLHSIVSLAILIGYYHLKV
SEQ ID NO: 146	-----GSGLGDI IAGGSGSGAGS-----GSGDGSGESGE--DDDALEVVVHIDEDFFYMEHVIKMAAVLHSIVSLAILIGYYHLKV
SEQ ID NO: 4	-----DVKEFALGSAGISNDDID-----DSNSTEMAD--DDGALLELVHVNEDFFYMAHVMRLAALLHSLASLAMLIAYYHLKV
SEQ ID NO: 6	-----DSKOFALGSAGISNDDID-----DSNSTEAD--DDGALLELVHVNEDFFYMAHVMRLAALLHSLASLAMLIAYYHLKV
SEQ ID NO: 8	SGELGGGLAEDLLEELGGSGEGGGLSG-GISGESGEDSGGE--EEDPIELVHVNEDFFYMAHVMKIAAMLHSLVSLAMLIAYYHLKV
SEQ ID NO: 10	-----SAAEELILGSGPGGGADITGSGFGSGDGGSGDGE-MEDEIPELVHVNEDFFYMEHVLRIACLHSLVSLAMLIAYYHLKV
SEQ ID NO: 56	-----SAAEELILGSGGGGADITGSGFGSGDGGSGDGE-MEDEIPELVHVNEDFFYMEHVLRIACLHSLVSLAMLIAYYHLKV
SEQ ID NO: 57	-----GSGESLMGLSGSLGILETCSGG-GEGGSGDGEGERPEPKVHVDDEFFYMEHVLRIAAIHLHSLVSLCMLIAYYHLKV
SEQ ID NO: 58	-----ISHAENAEAAASEGD-----DDEDALESIFFITGMQFPYVEYEITGMMLAQILYWIWISVLHSLSTFALLVSFYQLKI
SEQ ID NO: 59	-----VDPYHPVEILENATSPNG-----ADMAGDEDR--VDDQTEQILINQQFMYLVPVLQVLSILHSLVSLMILIAICALKV
SEQ ID NO: 60	-----GKELPTRSSDTAKVTNS-----LDSSPHR-----I IAVHYVLEESSGYMEPTLRILAILHTIISFFCIIGYYCLKV
SEQ ID NO: 61	-----GKELPSRSTENAKVTTS-----LDSSSHR-----I IAVHYVLEESSGYMEPTLRILAILHTIISFFCIIGYYCLKV
SEQ ID NO: 62	-----GKELPTRSSSENAKVTS-----LDSSSHR-----I IAVHYVLEESSGYMEPTLRILAILHTIISFFCIIGYYCLKV

**FIGURE 1DD**

SEQ ID NO:2	PLAIFKREKEIARKLEFDGLYIAEQPED-----DDLKSHWDKLVISAKSFPVNYWDKFVKKKVRKAKYSETYDFDSISNMLGMEKTSFSAQ
SEQ ID NO:128	PLAIFKREKEIARKLEFDGLYIAEQPED-----DDLKSHWDKLVISAKSFPVNYWDKFVKKKVRKAKYSETYDFDSISNMLGMEKTSFSAQ
SEQ ID NO:130	PLAIFKREKEIARKLEFDGLYIAEQPED-----DDLKSHWDKLVISAKSFPVNYWDKFVKKKVRKAKYSETYDFDSISNMLGMEKTSFSAQ
SEQ ID NO:144	PLAIFKREKEIARKLEFDGLYIAEQPED-----DDLKSHWDKLVISAKSFPVNYWDKFVKKKVRKAKYSETYDFDSISNMLGMEKTSFSAQ
SEQ ID NO:146	PLAIFKREKEIARKLEFDGLYIAEQPED-----DDLKSHWDKLVISAKSFPVNYWDKFVKKKVRKAKYSETYDFDSISNMLGMEKTSFSAQ
SEQ ID NO:4	PLAIFKREKEIARRLEFDGLYIVEQPED-----DDIKSHWDKLVISAKSFPVNYWDKFVKKKVRQKYSETYDFDSISNMLGMEKTSFSTQ
SEQ ID NO:6	PLAIFKREKEIARRLEFDGLYIVEQPED-----DDIKSHWDKLVISAKSFPVNYWDKFVKKKVRQKYSETYDFDSISNMLGMEKTSFSTQ
SEQ ID NO:8	PLAIFKREKEIARRLEFDGLYIAEQPED-----DDIKSHWDKLVISAKSFPVNYWDKFVKKKVRQKYSETYDFDSISNMLGMEKTSFSSQ
SEQ ID NO:10	PLAIFKREKEIARRLEFDGLYIAEQPED-----DDFKSHWDKLVISAKSFPVNYWDKFVKKKVRQKYSETYDFDSISNMLGMEKTSFAAQ
SEQ ID NO:56	PLAIFKREKEIARRLEFDGLYIAEQPED-----DDFKSHWDKLVISAKSFPVNYWDKFVKKKVRQKYSETYDFDSISNMLGMEKTSFAAQ
SEQ ID NO:57	PLAIFKREKEIARRLEFDGLYIAEQPED-----DDIKSHWDKLVISAKTFFPVNYWDKFVKKKVRQKYSETYDFDSISNMLGMEKTAFAAQ
SEQ ID NO:58	PLITFKREKEIARKLMFDGCGWITEEDSEELGIVDTFMVYLDRIIVVSAKSPPMVNYWDKFVRRKTRSKFDQVDDEETLTSILGEEKMS---T
SEQ ID NO:59	PLCLFKREKEIARKLEFDGQWITEQPTR-----DDIKGQWDSLAISTVSPVYVYWDKFVKKKLVKKYEDAVGEDKLCAMLGMEIGENPMA
SEQ ID NO:60	PLVIFKREKEVARKLEFDGLYITEQPS-----DDIKGQWDRLLVINTQSPFNNTYWDKFVKKKVMCKYGEFYGRDRISELLGMDKAALDFS
SEQ ID NO:61	PLVIFKREKEVARKLEFDGLYITEQPS-----DDIKGQWDRLLVINTQSPFNNTYWDKFVKKKVMCKYGEFYGRDRISELLGMDKAALDFS
SEQ ID NO:62	PLVIFKREKEVARKLEFDGLYITEQPS-----DDIKGQWDRLLVINTQSPFNNTYWDKFVKKKVMCKYGEFYGRDRISELLGMDKAALDFS
SEQ ID NO:2	EEEGSKG-----LIHYIINIDWRYQVWK-AGVTITDINSFLYSLWYFVSVMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:128	EEEGSKG-----LIHYIINIDWRYQVWK-AGVTITDINSFLYSLWYFVSVMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:130	EEEGSKG-----LIHYIINIDWRYQVWK-AGVTITDINSFLYSLWYFVSVMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:144	EEEGSKG-----LIHYIINIDWRYQVWK-AGVTITDINSFLYSLWYFVSVMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:146	EEEGSKG-----LIHYIINIDWRYQVWK-AGVTITDINSFLYSLWYFVSVMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:4	ENEERTG-----LINFVINIDWRYQVWK-AGVTITDINAFLYSLWYFTFSLILGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:6	ENEERTG-----LINFVINIDWRYQVWK-AGVTITDINAFLYSLWYFTFSLILGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:8	ETEERTG-----LINFILNIDWRYQVWK-AGVTITDINAFLYSLWYFVSVMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:10	ESEETG-----IFKYIMNIDWRYQVWK-AGVTITDINAFLYSLWYFVSVMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:56	ESEETG-----IFKYIMNIDWRYQVWK-AGVTITDINAFLYSLWYFVSVMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:57	EANEGGG-----FFHFITNIDWRYQVWK-AGVTITDINSFLYSLWYFVSVMGNFNN-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:58	DS-----S-YDVRYSCLWIGVILTNQGLYRVGYLLCSACGVFIPLFFFAHLIDVVLSPFPMKAILQSVTHNLQQLI
SEQ ID NO:59	GNPTENP--NQGLFSSMLTSLDKXHIWK-CGVIGTDSFLYIAWYLLFSLGLHINP-FFFAAHLLDVAVGFKTLRTILQSVTHNGKQLV
SEQ ID NO:60	DAREKKPKKDDSSLSAVLNSIDVKYQMWK-LGVVFTDNSFLYIAWYMTMSVLGHYNN-FFFAAHLLDVAVGFKTLRTILSSVTHNGKQLV
SEQ ID NO:61	DAREKKPKKDDSSLSAVLNSIDVKYQMWK-LGVVFTDNSFLYIAWYMTMSVLGHYNN-FFFAAHLLDVAVGFKTLRTILSSVTHNGKQLV
SEQ ID NO:62	DAREKKPKKDDSSLSAVLNSIDVKYQMWK-LGVVFTDNSFLYIAWYMTMSVLGHYNN-FFFAAHLLDVAVGFKTLRTILSSVTHNGKQLV

**FIGURE 1EE**

SEQ ID NO: 2	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 128	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 130	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 144	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 146	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 4	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 6	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 8	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 10	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 56	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 57	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 58	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 59	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 60	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 61	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI
SEQ ID NO: 62	LTVMLLTIIVYIYTVIAFNFFRKFYVQGED--DEVNRNCHDMLTCFVNLYKGVRAAGGIGDELEPPDGGDDSEVYRIIFDISFFFFIIVI

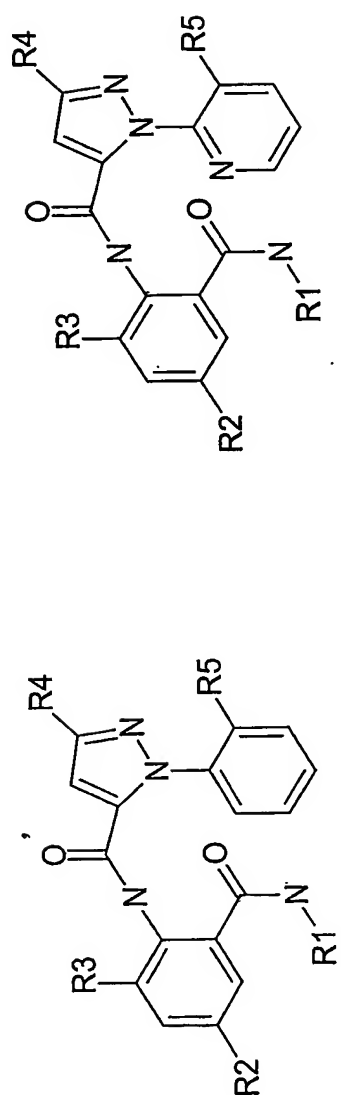
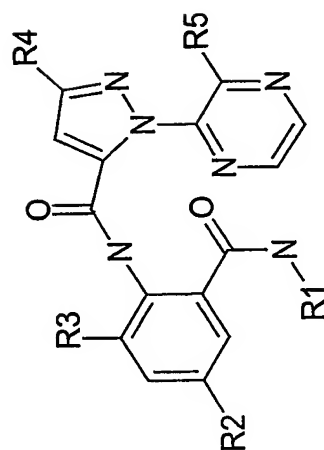
  

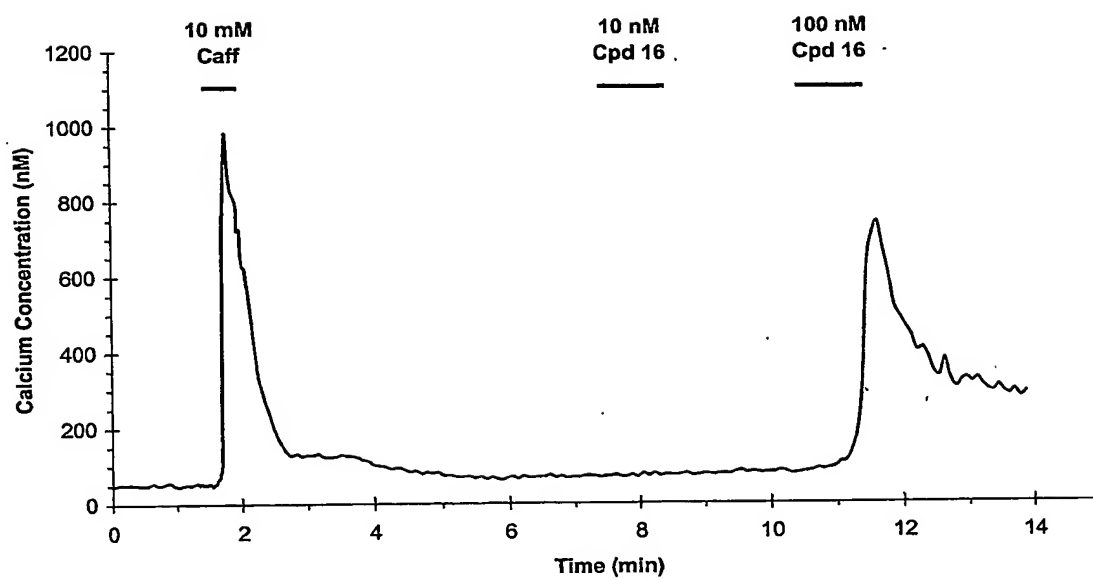
SEQ ID NO: 2	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 128	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 130	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 144	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 146	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 4	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 6	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 8	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 10	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 56	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 57	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 58	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 59	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 60	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 61	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR
SEQ ID NO: 62	LLAILQGLIIDAFGELRDQLESVKEDMESNCFICGINKDYFDKVPHGFDTHVQREHNLANYMFLLMHLINKPDTTEYTGQETYYVNNMYTQR

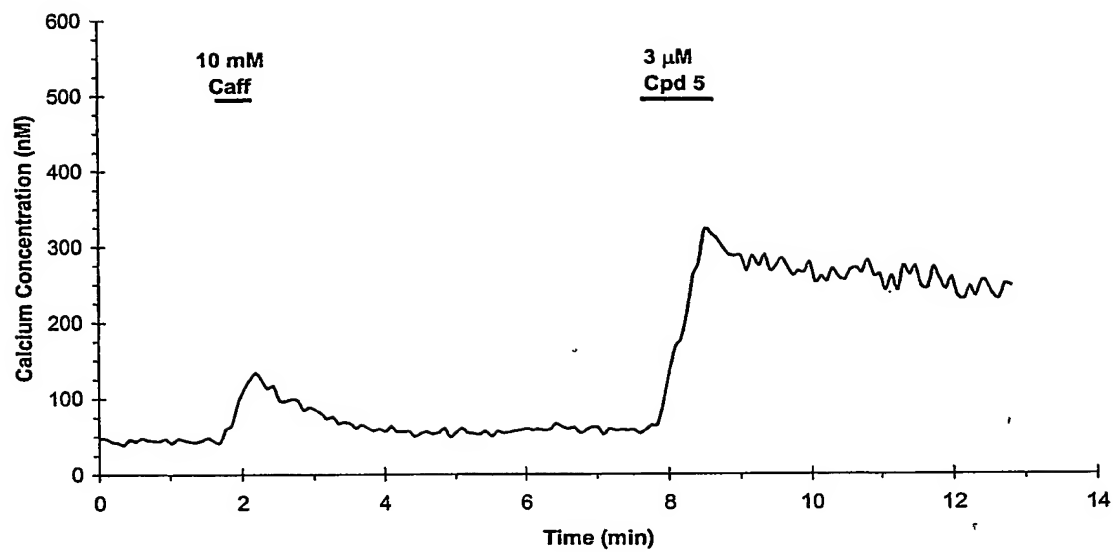
**FIGURE 1FF**

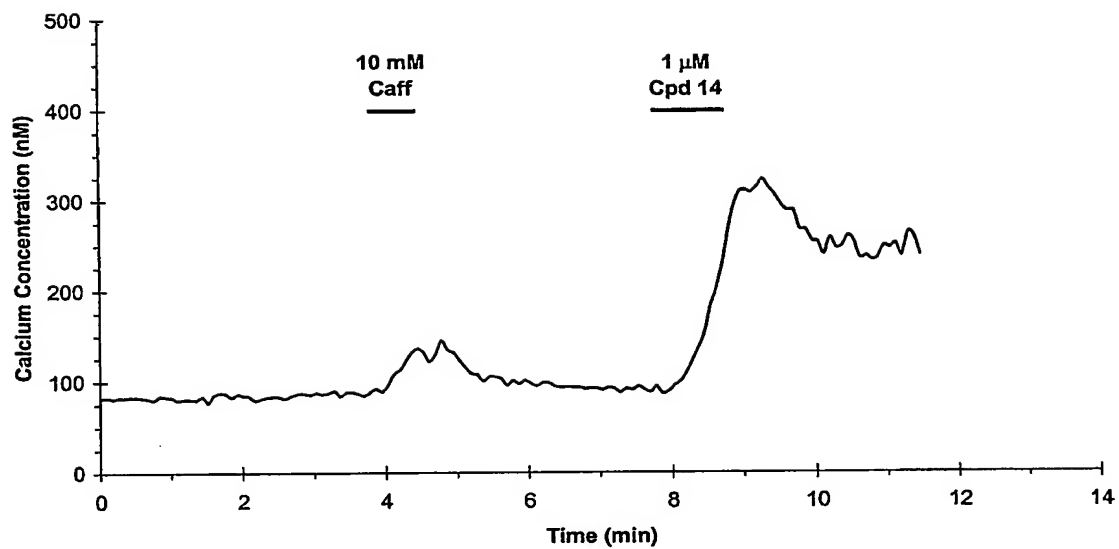
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SEQ ID NO:130	CWDFFPVGDGCFRKQYEDLMGE-----				
SEQ ID NO:144	CWDFFPVGDGCFRKQYEDLMGE-----				
SEQ ID NO:146	CWDFFPVGDGCFRKQYEDLMGE-----				
SEQ ID NO:4	CWDFFPVGDGCFRKQYEEELGGGGV--				
SEQ ID NO:6	CWDFFPVGDGCFRKQYEEELGGGGV--				
SEQ ID NO:8	CWDFFPVGDGCFRKQYEDLGGGG--				
SEQ ID NO:10	SWDFFPVGDGCFRKQYEDLSGGGGG				
SEQ ID NO:56	SWDFFPVGDGCFRKQYEDLSGGGGG				
SEQ ID NO:57	CWDFFPVGDGCFRKQYEDLGGGGS--				
SEQ ID NO:58	DWDFFPVGEFVKQYEDQLLQS-----				
SEQ ID NO:59	CWDFFPVGDGCFRKQYDDEQA-----				
SEQ ID NO:60	CWEFFPAGDCFRKQYEDQLN-----				
SEQ ID NO:61	CWEFFPAGDCFRKQYEDQLN-----				
SEQ ID NO:62	CWEFFPAGDCFRKQYEDQLN-----				
SEQ ID NO:2	= tobacco budworm	(5142 amino acids)			
SEQ ID NO:128	= tobacco budworm HV7	(5128 amino acids)			
SEQ ID NO:130	= tobacco budworm HV2	(5135 amino acids)			
SEQ ID NO:144	= tobacco budworm HV3	(5142 amino acids)			
SEQ ID NO:146	= tobacco budworm HV6	(5100 amino acids)			
SEQ ID NO:4	= green peach aphid	(5101 amino acids)			
SEQ ID NO:6	= cotton melon aphid	(5104 amino acids)			
SEQ ID NO:8	= corn plant hopper	(5127 amino acids)			
SEQ ID NO:10	= fruitfly (DuPont)	(5109 amino acids)			
SEQ ID NO:56	= fruitfly gi17352471	(5113 amino acids)			
SEQ ID NO:57	= mosquito gi21301556	(4868 amino acids)			
SEQ ID NO:58	= nematode gi1871447	(5071 amino acids)			
SEQ ID NO:59	= sea urchin gi18656155	(5317 amino acids)			
SEQ ID NO:60	= mouse gi13569850	(4967 amino acids)			
SEQ ID NO:61	= rabbit gi1245376	(4968 amino acids)			
SEQ ID NO:62	= human gi4506757	(4967 amino acids)			



**FIGURE 2****Group 1****Group 2****Group 3**

**Figure 3**

**Figure 4**

**Figure 5**

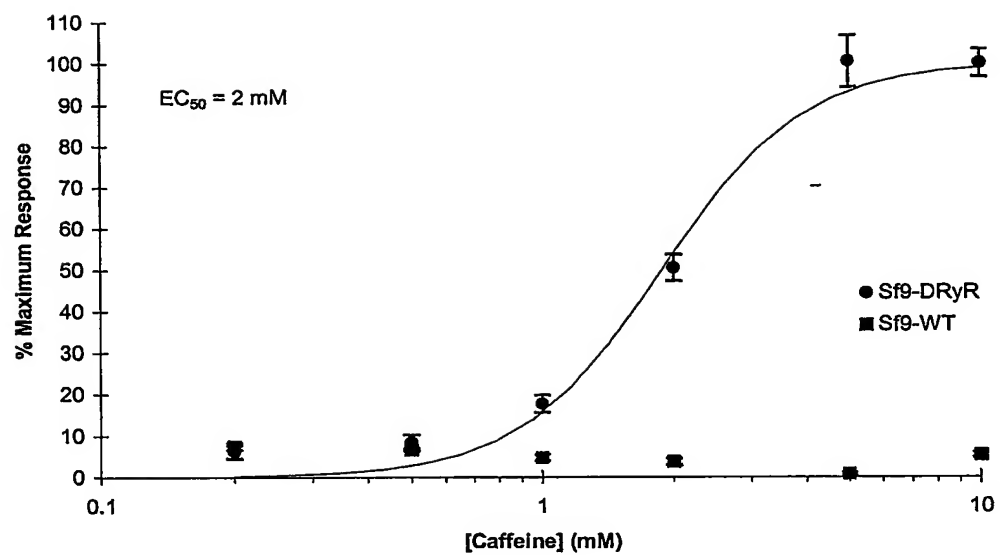
**Figure 6**

Figure 7

